



सत्यमेव जयते

# Employment News



WEEKLY

VOL. XXXVII NO. 50 PAGES 96

NEW DELHI 16-22 March 2013

₹ 8.00

## JOB HIGHLIGHTS

### UPSC

- Union Public Service Commission notifies Civil Services and Indian Forest Services Examination-2013

Last Date : 04.04.2013

### SSC

- Staff Selection Commission will hold an all India Examination for recruitment to the post of Sub-Inspectors in Delhi Police, CAPFs and Assistant Sub-Inspector in CISF and Intelligence Officer in NCB

Approximate Vacancies : 2240

Last Date : 12.04.2013

### CABINET SECRETARIAT

- Cabinet Secretariat requires 279 Research Officer, Personal Assistant and Stenographer

Last Date : 17.04.2013

### ORDNANCE FACTORY

- Ordnance Factory, Kanpur requires 100 Labourer (Semi-Skilled)

Last Date : 21 days after Publication

### INDIAN OIL

- Indian Oil requires about 61 Junior Engineering Assistant-IV, Junior Quality Control Analyst-IV/Trainee etc.

Last Date : 31.03.2013

Turn over the pages for other vacancies in Banks, Armed Forces, Railways, PSUs and other Govt. Deptts

## IMPORTANT

The Union Public Service Commission has notified the Civil Services Examination 2013 and the India Forest Service Examination 2013. There are major changes in pattern in both the examinations. Employment News beginning 23/03/13 issue will be publishing write-ups on the new pattern. The articles will be authored by experts in this field.

Candidates desirous of taking up these exams will be benefitted by the articles.

## Defence Acquisition Process and National Security Goals

- Bharat Verma

In the event of any future conflict, New Delhi's political will and the capabilities of the Indian military should be such that China and Pakistan are hard-pressed to defend Tibet and Lahore respectively instead of threatening Arunachal and Kashmir. These capabilities will act as a major deterrent.

However, with the present defence procurement systems, inconsistency in decision making, extreme level of corruption involved, it is difficult to build military capabilities for the armed forces in tune with the multiplying threats to India. The threat comprises two-front-war imposed by China in collusion with Pakistan. Both countries lay claim to large area of Indian territory. In addition with 40% of the territory under control of Maoists, a half front war may suck in large military assets.

Due to neglect by the state for decades, Indian military power is in decline and its capabilities are shrinking. The equipment held on the inventory is ancient and archival. Yet, the military is expected to successfully defend the borders of the country. New Delhi's neglect of its military over decades is gradually but surely, destabilising the 'final' instrument of

the State with morale plummeting to the lowest levels since independence. To add insult to injury, the budgetary cut of Rs 10,000 crore imposed recently by the finance ministry will adversely impact the much-needed military modernisation. China and Pakistan are emboldened at the move by the Indian Finance Ministry that will degrade the military further. Meagre budgetary allocation for defence and the bureaucratic red tape involved in the acquisition process have placed the defence services in a tight spot. In such a milieu compounded by acute scarcity of equipment and human resources, plummeting morale in the armed forces is not surprising. Today, India is in no position to deal with threat from China or fight a two-front war if imposed on it after the withdrawal of Western forces from Afghanistan.

The harsh reality is that if the Indian Army is incapable of protecting the borders, the Union of India will disintegrate within no time. Another issue of concern is that the police and the CRPF cannot successfully counter the Maoist onslaught. Unfortunately, sooner or later, the Army will be called in to take charge of the operations against the Maoists. By arming

Maoists, Beijing and Islamabad want to ensure that Indian Army's attention is diverted from the borders to handle the growing internal turmoil. This will further stretch the military which is already under considerable pressure on account of capability degradation owing to the callous apathy of the political leadership.

In addition to human resources, no military can pack the extra punch unless it is equipped with the most modern weaponry. At the same time, a nation cannot be a great power unless it boasts of a fairly large defence industrial complex. The reason India is one of the world's largest importers of defence equipment today is due to the fact that under the disguise of 'self-sufficiency' mantra, scarce and precious resources of the nation have been squandered largely due to the inefficiency of the Defence Public Sector Units and the DRDO. One of the main reasons for delay in the production of the Scorpene submarine is the fact that it took a huge effort for DCNS of France to upgrade and modernise the public sector shipyard Mazagon Docks!

Today, the war-fighting equipment

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## State of the Economy and the Budget 2013-14

- Bibek Debroy

Let's begin with Economic Survey, 2011-12. This begins with the following opening sentences. "While India's recent slowdown is partly rooted in external causes, domestic causes are also important. The strong post-financial-crisis stimulus led to stronger growth in 2009-10 and 2010-11." Here are the real GDP growth numbers - 8.6% in 2009-10, 9.3% in 2010-11, 6.2% in 2011-12 and 5.0% in 2012-13. Note that CSO's 5% for 2012-13 is no longer being challenged. Why did growth slow in 2011-12 and 2012-13? According to Survey, this is because of "high rates and policy constraints". Later, we are told, "A number of factors are responsible. First, the boost to demand given by monetary and fiscal stimulus following the crisis was large...The result was strong inflation and a powerful monetary response that also slowed consumption demand.

Second, starting in 2011-12, corporate and infrastructure investment started slowing both as a result of investment bottlenecks as well as the tighter monetary policy. Thirdly, even as the economy slowed, it was hit by two additional shocks: a slowing global economy, weighed down by the crisis in the Euro area and uncertainties about fiscal policy in the United States, and a weak monsoon,

at least in its initial phase." It then adds, "A third possible reason for lower corporate investment is policy bottlenecks (such as obtaining environmental permissions, fuel linkages, or carrying out land acquisition), which led to a number of large projects becoming stalled, which may in turn have discouraged new investment."

As the budget speech says, it is important to get back to growth and stimulate both consumption expenditure and private investments. But it is unreasonable to expect the budget to do this. It is only one instrument. The 2013-14 budget numbers are based on a projected nominal GDP growth rate of 13.4%. This is what the budget speech says. "In the current year, the CSO has estimated growth at 5 percent while the RBI has estimated growth at 5.5 percent." And this is what Economic Survey added, in addition to what was stated earlier. "Quarterly GDP growth rate in India declined in each of the successive quarters between the fourth quarter of 2010-11 and the fourth quarter of 2011-12. Growth in H1 of the current year works out to 5.4 per cent, while the CSO's Advance Estimate for growth for 2012-13 is 5.0 per cent." Therefore, in the last 6 months of 2012-13, the economy grew at 4.6%. Yes, Economic Survey expected a

growth rate of between 6.1% and 6.7% in 2013-14. Survey has identified reasons for the slowdown, but hasn't told us why it expects these to be reversed and growth to pick up from 4.6% to 6.1% to 6.7%. Or at least, the recent reform initiatives Survey has mentioned aren't terribly convincing. The argument isn't that growth will continue at 4.6%. It will probably inch up. However, it may inch up to 5.5%, perhaps 6% as an outer limit. In that event, even if inflation (measured by the GDP deflator) is 7%, the nominal GDP growth becomes 13%, not 13.4%. In other words, deficit numbers look respectable because the denominator has been blown up. The actual denominator is likely to be lower. On the face of it, the Finance Minister has stuck to so-called red lines, both in 2012-13 and in 2013-14. The fiscal deficit/GDP ratio was 5.2% in 2012-13 and will be 4.8% in 2013-14. By 2016-17, the ratio will be brought down to 3%. Roughly, 0.5% reduction a year is doable. This is marginally above, but achievable, though tough, provided one can stick to 4.8% in 2013-14. 5.2% in 2012-13 was achieved by dramatically pruning Plan expenditure. More interesting is how one can get 4.8% in 2013-14 and whether the numbers are believable.

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# GAMING AS A CAREER

Online gaming is the most happening activity in the entertainment sector today. You find people of all ages hooking on to these games - be it video games, wireless gaming as those on handheld devices or PC and console-based like Playstation, Xbox and others. Gaming on mobile phones has indeed become the fashion of the day. With the online gaming on its upward trend, the game design and development has now become an exciting and lucrative field.

Gaming business is a highly costly affair. According to experts in the field, the cost involved may range anything between \$4-10 million for the entire process of design, development and delivery. The time taken for the activity is approximately two years. The industry is vastly developed in the western world while it is in its budding stage in India. But various international gaming studios are outsourcing their projects to Indian workforce owing to the expertise and low costs here.

According to NASSCOM and other popular market research firms, the Indian gaming industry is expected to grow by 53% by the end of 2013 and generate approximately Rs. 3,100 crore by 2014. With such promising statistics, the online

gaming industry is all set to offer a bright career for Indian aspirants. Another good news is that the besides the international themes like FIFA, Spiderman and others, the craze for Indian themes is on the raise now.

The Indian gaming market has a lot to offer for the enthusiastic youngsters who are keen to exhibit their talent and bring out their potential. The gaming industry is both exciting and rewarding. Developers, designers, programmers, artists and testers have fabulous positions in the gaming field. While programmers engage themselves in developing codes and creating complex functions, designers take care of the touch and feel experience and delivering the fun element. Apart from these roles, animators, texture and concept artists, audio composers and producers have a pivotal role in the gaming industry. Likewise, testers are offered a challenging task of actually testing the functionality of the online games on different platforms and report the bugs if any. Thus the industry provides the aspirants an opportunity to prove their expertise to entertain game-lovers across the world.

Making a successful career in the online

gaming industry is not as simple as it sounds. Enormous perseverance, self-motivation, passion, creativity, aptitude are some of the desired qualities the employers look for in the candidates. Being technically proficient and possessing artistic skill-set are other prerequisites.

Academically, one needs to have a degree or diploma in computer science or fine arts. The aspirants can opt for any of the short-term courses or take-up game development programmes at the diploma, undergraduate or postgraduate levels. Based on their interest, they can pursue courses in character designing, 3D animation and graphics, user interface designing and audio programming

among others. They should be having thorough knowledge in Flash, ASP, WAP, Java, C++, and Shockwave to become programmers. As aspirant artists, one needs to have good knowledge in Maya, 3DS Max, Adobe Photoshop, Deep Paint, Zbrush and other digital sculpting applications and also Illustrator among others. The scope for jobs in this field is wide and varied. One can find placements in companies like Zapak, Hungama, Wipro, E4E and many more in areas of 3D games, Web 3D graphics, simulator graphics and interactive demos apart from the specialised area of game testing. The salary package ranges from Rs.12,000-Rs. 20,000 depending on the position and the company that hires you.

## Colleges and Courses

College	Course	Eligibility	Admission	Website
ICAT Design and Media College, Hyderabad	BA Digital Media with Game Design and Game Development as specialisations	+2	Aptitude test	www.icat.ac.in
	B.Sc Digital Media with Game Design and Game Development as specialisations			
	PG Diploma in Game Design and Game Development			
MAEER's MIT Institute of Design, Pune in collaboration with Abertay University, Dundee Scotland)	BA (Hons) Computer Arts for Gaming	+2	Entrance test	www.mitid.edu.in
	Post Graduate Programme in Computer Arts for Gaming	Graduation		
Arena Animation, Hyderabad	Arena's Game Art and Design course	+2	-	www.arena-multimedia.com
Academy of Animation and Gaming, Gurgaon	B.Sc Gaming	+2	-	www.aaggurgaon.in
	M.Sc Gaming	Graduation		
Media Arts and Science College, Chennai	B.Sc Gaming	+2	-	http://masc.asia
Amplify Mindware, Pune	Bachelor of Science in Animation and Gaming	+2 (MPC) with 50 per cent marks	Performance at entrance test, group discussion and personal interview	www.amplifymind.com
International Academy of Computer Graphics, Hyderabad in collaboration with JNTU	Bachelor of Multimedia	+2 with at least 55 per cent marks	-	www.iacg.inf
	M.Sc in Multimedia	Graduation with at least 55 per cent marks		
Jawaharlal Nehru Architecture and Fine Arts University, Hyderabad	BFA with Animation as a specialisation	+2	Performance at entrance tests	http://jnafau.ac.in
BITS, Jaipur	B.Sc Animation and Multimedia	10+2 with minimum 60 per cent marks and minimum 50 per cent marks in all the required subjects at 10+2 level	Merit, rank and performance at Creativity Aptitude Test.	www.bitmesra.ac.in
Anna University, Chennai	M.Tech Multimedia	BE/ B.Tech in CSE/ IT/ EEE/ ECE or Electronics	Performance at entrance test/ GATE	www.annauniv.edu
SRM University, Kancheepuram District	M.Tech Multimedia Technology	BE/ B.Tech in any branch or M.Sc in Computer Science/ IT or MCA	Performance at All-India Engineering Entrance Examination of SRM University (SRMEEE) or GATE	www.srmuniv.ac.in

(The write up is contributed by TMIE2E Academy Career Centre based in Secunderabad. e-mail : faqs@tmie2e.com)

## DIARY OF EVENTS

(09.03.2013 to 15.03.2013)

- The Union Cabinet has approved a Bill on providing time-bound services to citizens like passports, pensions, birth, death and caste certificates.
- MGNREGA workers will now get more money from April 1.
- Indigenous developed "Pinaka" rockets were successfully test-fired from a multi-barrel rocket launcher (MBRL) at Chandipur in Odisha.
- The Uttarakhand Forest and Police Department have received a rare honour for their work in combating wildlife crime. The State figured among the 10 recipients across the world to have received the award given during the 16th Conference of Parties (CoP) of the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) in Bangkok.
- Moody's Analytics, a subsidiary of global rating agency Moody's, has revised its GDP growth forecast for India from 5.1% to 6.2% for 2013 and predicted further possibility of achieving 8% GDP growth for 2014 onwards.
- Bangladesh presents the country's highest honour "Liberation War Honour" to President Pranab Mukherjee in Dhaka.
- The first Tagore Award for Cultural Harmony for 2012 has been conferred on late sitar maestro Ravi Shankar. The award carries a prize money of Rs 1 crore, shawl, plaque and a citation.
- The victim of the December 16 Delhi gang-rape will be posthumously honoured by the US Government with its Secretary of State's International Woman of Courage Award.
- Mahesh Bhupati wins his first title of the 2013 season when he along with French man Micheal Llodra to edge past Robert Lindstedt and Nenand Zimonjic in the summit clash of the Dubai Tennis Championships.
- India defeats Australia in the 2nd Test in Hyderabad.
- Olympic champion Jenn Suhr lit up the US indoor athletics championship by leaping 5.02 meters to set a new women's pole vault world record.

## FORM - IV

(See Rule)

1. Place of Publication : Delhi
2. Periodicity : Weekly
3. Printer's Name : The Amar Ujala Publication Limited
- Whether citizen of India? : Yes
- (If foreigner, state the country of origin) : The Amar Ujala Publication Limited, C-21 & 22, Sector-59, Noida-201301.
- Address
4. Publisher's Name : Ms. Ira Joshi
- Whether citizen of India? : Yes
- Address : Additional Director General Publications Division Ministry of Information & Broadcasting East Block-IV, Level-V, R.K. Puram, New Delhi-110 066.
5. Editor's Name : Nalini Rani
- Whether citizen of India? : Yes
- (If foreigner, state the country of origin) : -
- Address : Editor Employment News Ministry of Information & Broadcasting East Block-IV, Level-V, R.K. Puram, New Delhi-110066.
6. Names and addresses of individuals who own the Newspaper-and partners or, Shareholders holding more than one percent of the total capital : Wholly owned by Ministry of Information and Broadcasting, Government of India

I, Ira Joshi, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Sd/-  
(Ira Joshi)  
Publisher

**Government of India**  
**Ministry of Defence**  
**Indian Ordnance Factories**  
**Ordnance Factory, Kanpur - 208009 (UP)**

Online applications are invited from the Citizens of India only for the following Group 'C' posts from the candidates who are fulfilling the requisite qualification/specification as mentioned below. The intending candidates must visit the factory's website at the address <http://www.ofkanpur.gov.in> and carefully read all the provisions/stipulations/conditions/ instructions etc. given in the advertisement before proceeding to apply for the post

1. Name of Post, Pay Band, No. of Vacancies:

Name of the post, Pay Band (PB-1) with Grade Pay	Group	Number of vacancies with reserved category						
		UR	SC	ST	OBC	Total	PH	Ex-SM
<b>LABOURER(SEMI-SKILLED)</b> Pay Band (PB-1) : ₹ 5200-20200 Grade Pay : ₹ 1800/-	C	50	22	02	26	100	03	10

\*The no. of posts in Semi-skilled category may likely to be increased marginally.

(**Abbreviation:** SC - Scheduled Caste, ST - Scheduled Tribe, OBC - Other Backward Class, PH - Physically Handicapped, Ex-SM - Ex-Serviceman)

Post reserved for Physically Handicapped and Ex-Serviceman will be adjusted by Horizontal Reservation i.e. the selected candidates will be adjusted against the categories of GEN/SC/ST/OBC to whom they belong.

1. The number of vacancies mentioned above is provisional which can be increased or decreased at the discretion of the competent authority.

2. If the no. of applications received in response to this advertisement is large and it may not be convenient or possible to examine all the applications, the GM at his discretion may restrict the no. of candidates, to a reasonable limit on the basis of qualification and experience, higher than the minimum prescribed in the advertisement.

**3. Age Relaxation:**

**Age Limit :-** 18 to 32 years.

- For SC/ST candidates - Upper age limit + 5 years
- For OBC candidates - Upper age limit + 3 years
- For PH (PC) candidate - Relaxation upto 10 (Ten) years for UR candidates,  
- Relaxation upto 15 (Fifteen) years for SC/ST candidates  
- Relaxation upto 13 (Thirteen) years for OBC candidates.

4. No age relaxation will be available for the candidates reserved category applying for unreserved posts.

5. Up to the age of 40 years to Government Servant who have completed minimum 3 years regular service.

6. For Ex-Serviceman - The upper age limit shall be relaxed by the length of military service increased by three year plus age relaxation to the Ex-Serviceman candidates belonging to SC/ST/OBC/PH as mentioned above.

**4. Essential Qualification:** 10th Passed/SSC Certificate.

**5. Fees:**

₹ 50/- (₹ Fifty only) through Crossed Indian Postal Order (IPO) or Crossed Bank Demand Draft (Nationalized Bank) of recent date drawn in favour of General Manager, Ordnance Factory, Kanpur - 208009, payable at Kanpur Branch. Application Fee should be submitted along with application form. However, no fee will be charged from SC/ST and Ex-Serviceman candidates.

**6. How to Apply:-**

i) The candidates who fulfill the requisite qualifications/specifications as mentioned above have to apply **ON-LINE** through website <http://www.ofkanpur.gov.in> only.

ii) After submitting the online application and upload recent photograph, a Serial No. will be generated automatically. The Mobile number and date of birth (both) of candidate should be used for taking the printout/hard copy of filled in application and send this application to Ordnance Factory, Kanpur duly completed in all respect. While sending the application, these instructions must be followed:

iii) Upload a recent color passport size 20 KB JPG photograph and signature size 10 KB JPEG/JPG of the candidate on specified space.

iv) The printout of the filled application form should be impression of left hand thumb at proper place sent to Ordnance Factory, Kanpur. Applications should be addressed to - **The General Manager, Ordnance Factory, Kanpur - 208009 (UP)**.

v) Alongwith the application attested copies of the following documents must be attached:

Copies of requisite certificates in support of age (Date of birth) and qualification, experience, caste certificate in respect of SC/ST/OBC candidate and valid Non-creamy layer certificate in respect of OBC candidates.

vi) Crossed Indian Postal Order (IPO)/Demand Draft of value of ₹.50/- (₹.Fifty only) in favour of The General Manager, Ordnance Factory, Kanpur payable at 'Kanpur'. However, candidates belonging to SC/ST and Ex-Serviceman need not send any Indian Postal Order.

The examination fee is Non-refundable.

vii) The complete filled-in application along with the above enclosures should be directly sent to the Addressee in an envelope clearly written with words (in capital letter) i.e. "**APPLICATION FOR THE POST OF LABOURER (SEMI-SKILLED)**".

viii) Persons working in Government servant must apply through proper channel only.

ix) SC/ST/OBC Certificate should be in the prescribed format issued by the competent authority, applicable for reservation in jobs under **Govt. of India**.

x) The candidates seeking OBC reservation is required to submit a certificate regarding his OBC status and Non Creamy layer status issued by a Competent Authority and should be valid on the last date of receipt of application.

**7. Photographs:**

The candidate should upload his/her recent (not more than three months old) passport size 20 KB JPEG/JPG photograph and signature size 10 KB JPEG/JPG on the on-line application.

**8. Rejection of Application :**

The application shall be summarily rejected on following grounds.

- If, application is received after the last date of receipt of printout of application form.
- If, Date & signature is not appended in the Application form at the prescribed places.
- If, the candidate does not put Thumb Impression' in the application form at the prescribed column of the proforma.
- If, Demand Draft/Indian Postal Order is drawn before the Publication of this advertisement or is not crossed.
- If, the age of the candidates exceeds the prescribed age limit on the closing date.
- If the essential qualification is not possessed by the candidate.
- If, copies of all supporting documents duly attested by Gazetted Officer are not enclosed.
- In case of OBC candidates if valid 'Non-Creamy-Layer' certificate is not attached.
- If application is not complete in any respect as per there requirement given in the advertisement.
- Closing Date:** The closing date of receipt of applications will be **21st Day** from the week ending date of publication of the advertisement in the Employment News/Rozgar Samachar.

**10. Method of Selection:**

**Note:** In case of receipt of application in extremely large scale then a preliminary written test of non qualifying nature may also be conducted candidate passing in this preliminary exam will be permitted for Phase-I exam but without any weightage and marks obtained by him in prelim or Phase '0' exam. Selection process will consists of two phase of examination - PHASE-I written test of 100 marks and PHASE-II Trade Test (Practical).

All eligible candidates will be called for Phase-I written examination in which an objective type multiple choice answer will be given.

On the basis of merit in written test Phase-I examination marks, candidates to the extent of 1.25 times the number of vacancies shall be called for the trade test.

**SCHEME & SYLLABUS FOR DIRECT RECRUITMENT**  
**TO THE POST OF LABOUR IN ORDNANCE FACTORIES**  
**SCHEME**

**1. WRITTEN TEST:**

SUBJECT	Maximum Marks	Number of Questions	Duration
Numerical Aptitude (10th Standard) (Objective Type)	40	40	02 Hours
General Science (10th Standard) (Objective Type)	30	30	
General Awareness (10th Standard) (Objective Type)	30	30	
Total Marks	100		

**2. TRADE TEST:**

As per trade test specifications, an unskilled workman will be mainly engaged on handling/shifting

of material. He will also be required to clean machines, floors of shop/areas around machines and other similar places, if and as necessary. The trade test may be designed accordingly to test the aptitude of the candidate. However, this test will be of qualifying nature only.

Final grading will be decided based only on marks obtained written test subject to qualifying in the prescribed trade test.

**SYLLABUS FOR WRITTEN TEST:**

**Numerical Aptitude:**

- Number Systems
- Fractions, Decimals and Percentages
- Ratio and proportion
- Averages
- Interest, Profit & Loss, Discount
- Time & Distance, Time of work

**General Science:**

The questions on science may be set keeping in view the standard appropriate to High School. Questions may include subjects and activities which are more relevant to day-to-day existence/activities of human life.

**General Awareness:**

- Current events-National & International
- History & Culture
- General polity and Indian Constitution
- General Geography

The question paper for the written examination shall be set in Hindi, English.

**10. GENERAL INSTRUCTIONS:**

- The crucial date for determining the Age Limit shall be the last date of receipt of application.
- The above posts carry pay scales as shown against each plus usual allowance as admissible to Central Govt. Employees from time to time.
- TA will be paid to the SC/ST/PH candidates as per the rules.
- Mere submission of application form does not guarantee issue of Admit Card.
- Canvassing in any form will disqualify the candidature.
- Ordnance Factory, Kanpur will not be responsible for any postal delay.
- New entrants to the Government service will be governed by New Pension Scheme termed as "Defined Contributory Pension Scheme".
- The candidate is liable to be transferred to any of the Ordnance Factories in India, in case of exigency of services.
- Only selected candidates would be communicated of their selection in due course after the selection process.
- The services of the candidates furnishing any fake/false Certificates are liable to be terminated at any stage after appointment. Apart from this, suitable action will also be initiated as per the Law of the Land. Hence, candidates 'are advised not to submit dubious certificates.
- Eligible/Non eligible candidates can see their status by entering Mobile No. & Date of birth on website i.e. <http://www.ofkanpur.gov.in>

**Note:-** Admit card will be issued on website only to eligible candidates for written examination / physical test.

**11. General Note:**

- Candidates appearing for Written Test/Trade Test will travel on their own expenses. However, SC/ST candidates shall be reimbursed Bus fare/Second Class Railway fare as admissible under rules, on production of Bus/Train ticket.
- The candidature of candidate shall be cancelled if he has applied more than one application forms.
- Name of the post must be clearly superscribed / written on the top of the envelope in capital letters.
- Submission of false/incorrect/incomplete information and/or dubious/ bogus document shall disqualify the candidate.
- Copies of all the documents i.e. Date of Birth certificate, Educational Qualification and certificates, mark sheets, Caste certificate, Ex-Serviceman certificate duly attested by a Gazetted Officer should be enclosed with the application. No documents should be enclosed in original except "No Objection Certificate".
- Candidate should enclose copy of 'School Leaving Certificate/Transfer Certificate' as proof of date of birth.
- Person working in Government servant must apply through proper channel alongwith the certificate from their Establishment that **NO DISCIPLINARY ACTION IS CONTEMPLATED/PENDING** against them and that they have no objection in releasing them in case of selection.
- For departmental candidates relevant rules shall apply.
- Mere submission of application form does not guarantee for issue of 'Admit Card' for Written Test.
- Only selected candidates will be informed for their selection in due course after the selection process and no other correspondence on the subject would be entertained.
- Canvassing in any form will disqualify the candidate.
- No GPF and DCRG Scheme is Admissible to the post under Central Govt. for those appointed on or after **01-01-2004**. The New Pension Scheme i.e. "**DEFINED CONTRIBUTORY PENSION SCHEME**" is Compulsory for all Central Govt. Employees who are appointed on or after 01-01-2004.
- The services after appointment are liable to be transferred to any other Ordnance Factories in India, subject to exigencies.
- The advertisement is subject to orders, if any, by Hon'ble Courts/Ministry of Defence/Ordnance Factory Board etc.

**12. DEFINITIONS OF DISABILITIES:**

- Hearing Impairment: "Hearing Impairment" means loss of sixty decibels or more in the better ear in the conversational range of frequencies.
- Locomotor disability: "Locomotor Disability" means disability of the bones, joints or muscles leading to substantial restriction of movement of the limbs or any form of cerebral palsy.
- "Cerebral Palsy" means a group of non-progressive conditions of a person characterized by abnormal motor control posture resulting from brain insult or injuries occurring in the prenatal, perinatal or infant period of development.
- All the cases of orthopedically handicapped persons would be covered under the category of "locomotor disability or cerebral palsy"

**5. DEGREE OF DISABILITY FOR RESERVATION:**

Only such persons would be eligible for reservation in services/posts who suffer from not less than 40 percent of relevant disability. A person who wants to avail of benefit of reservation would have to submit a Disability Certificate issued by competent authority.

The Categories of disabled for the said job (on functional classification) are:-

- Orthopaedically Handicapped: OA - One Arm affected (R or L),  
BL - Both legs affected but not arms,  
OL - One Leg affected (R or L)

Hearing Handicapped : D - Deaf, PD - Partially Deaf

**6. COMPETENT AUTHORITY TO ISSUE DISABILITY CERTIFICATE :**

The competent authority to issue a Disability Certificate shall be a Medical Board duly constituted by the Central or a State Government. The Central/State Government may constitute Medical Board(s) consisting of at least three members out of which at least one shall be a specialist in the particular field for assessing loco-motor/cerebral/hearing disability, as the case may be.

7. The Medical Board shall, after due celebration, give a permanent disability in cases of such permanent disabilities where there are no chances of variation in the degree of disability. The Medical Board shall indicate of period of validity of the certificate, in cases where there are chances of variation in the degree of disability.

8. At the time of initial appointment and promotion against a vacancy reserved for persons with disability, the appointing authority shall ensure that the candidate is eligible to get the benefit of reservation.

**13. Language for Written Test/Trade Test:**

**Hindi or English**, as per choice indicated by the candidate in application form.

14. Applications should be submitted to **The General Manager, Ordnance Factory, Kanpur (UP) Pin- 208009** in the prescribed format.

**15. CAUTION TO ALL CANDIDATES: .**

Some unscrupulous elements may approach you with the assurance of procuring appointment for you in the factory through illegal gratification. You must not fall prey to such false assurance or exploitation and must not entertain or encourage such elements in any way, it is emphasized and re-assured that the written test and the selection exercised will be done on the merit only in a transparent manner.

**davp 10201/11/2800/1213**

**EN 50/39**

## Soil & Land Use Survey of India

Applications are invited (in the prescribed format) from suitable Indian Citizens for filling up the post of Jeep Driver (Ordinary Grade), Group "C" at Bangalore Centre of Soil & Land Use Survey of India, 207, Kodigehalli, Vidyanarayapura Post, Bangalore-560097. The details of requirement of the post are given as under:-

S. No.	Name of the post	Number of posts and their location	Pay -Band and Grade Pay	Category	Age	Qualification
1.	Jeep Driver (Ordinary Grade) Group "C"	Two (2 posts)	PB-1 (5200-20200) GP: Rs.1900/-	UR	18-27 Years*	1. Proficiency in Motor Driving 2. Should hold a valid driving licence for light/heavy motor vehicles. 3. Middle School Standard (8th Class) pass from recognized School or Board and working knowledge of Hindi.

\* **Note 1:** Age relaxable for Government servants upto the age of 40 years in the case of general candidates and upto 45 years in the case of candidates belonging to the Scheduled Castes or Scheduled Tribes in accordance with the instructions or orders issued by the Central Government from time to time.

\***Note 2:** The crucial date for determining the age limit shall be the closing date for receipt of applications from candidates in India.

### General Conditions:

- The candidate should apply in the prescribed format given hereunder along with a passport photograph affixed and duly signed by the candidate at the bottom of his photograph.
- The candidate should enclose the attested photo-copies of educational qualification, valid Driving Licence and experience certificate, if any.
- The application of serving Government employee should be routed through his Head of the Office or Department.
- The selection of the candidate will be on the basis of driving test skills and interview.
- The selected candidate will be on probation for two years from the date of joining the post.
- The service of the selected candidate will be transferable to any Centre of the Soil and Land Use Survey of India located at different places in India.

The candidate should send his/her application in the prescribed Format by post within 30 days from the date of advertisement of vacancy to the Soil Survey Officer, Soil & Land Use Survey of India (Dept of Agri & Coop.) address 207, Kodigehalli, Vidyanarayapura Post, Bangalore-560097 Phone No. 080 23641119, 080 23640761.

### Prescribed Format

#### APPLICATION FOR THE POST OF JEEP DRIVER (ORDINARY GRADE)

- Name of applicant
- Father's Name
- Sex Male/female
- Whether belongs to SC/ST/OBC/Ex-Serviceman
- Marital Status
- Date of Birth
- Nationality
- Educational Qualifications (enclose attested copies of certificates)

Affix  
Photograph

- | Name of School  | Name of Recognized Board/University | Examination Passed | Division obtained | Percentage of marks |
|---|-------------------------------------|--------------------|-------------------|---------------------|
| 9. (a) Driving Licence Number   |                                     |                    |                   |                     |
| (b) Issuing Authority   |                                     |                    |                   |                     |
| (c) Whether the Driving Licence is for Private/Commercial/Heavy/Light vehicles (Enclose copies) |                                     |                    |                   |                     |
| 10. Experience (Enclose copies)   |                                     |                    |                   |                     |
| 11. Whether serving as a Govt. Employee, give details   |                                     |                    |                   |                     |
| 12. Complete Postal Address with Pin Code   |                                     |                    |                   |                     |
| 13. Tel. No. /Mobile No.  |                                     |                    |                   |                     |
| 14. Whether registered in the Employment Exchange. If yes, furnish the registration number.     |                                     |                    |                   |                     |
| 15. Any other information.  |                                     |                    |                   |                     |

**Declaration :** I hereby declare that the above information are true and correct to the best of my knowledge and belief and nothing material has been concealed therefrom. In case, the same is not found correct by the recruiting authority, my candidature shall stand cancelled.

**Dated :** \_\_\_\_\_  
**Enclosures :** \_\_\_\_\_ **Signature of the Candidate**  
EN 50/94

### Government of India

## Central Water Commission

Hydrological Observation Circle  
A - 17, Sector-56, Noida 201301 (UP)

Applications are invited from eligible candidates to fill the following vacant post of Work-charged cadre (Group 'C') under Hydrological Observation Circle, Noida in the Pay Band-1 of Rs. 5200-20200/- + Grade Pay Rs. 1900/- (for Sl. No.1 & 2 & Rs. 1800/- for Sl. No. 3)

S.N.	Name of Post	No. of Post & reservation	Age limit*	Essential Qualification
01	Electrician Grade-II	01 (One) Unreserved	18-30 (05 years age Relaxation for SC/ST & 03 years for OBC Candidates)	(1) Matriculation with ITI in Electrician trade or equivalent from recognized Board / University / Institution (2) One year relevant practical experience.
02	Mechanic Grade-II	02(Two) Unreserved		(1) Matriculation with ITI in Mechanic trade (Radio Mechanic & television/Diesel Mechanic (or equivalent from recognized board / University/ institution) (2) One year relevant practical experience.
03	Skilled work Asstt.	15 (Fifteen) For ST only		Matriculation or ITI or equivalent from recognized Board / University / Institution

Interested candidates should send their applications as per format given to Superintending Engineer, H.O. Circle, CWC, A-17, Sector-56, Noida-201301 within 30 days from the date of publication of Advertisement in the Employment News along with attested photocopies of relevant documents/Caste Certificate/ experience certificates duly attested and colored photograph pasted on the application. Incomplete and unsigned applications will be rejected. Application may be sent by post only.

2. The age and qualification of the candidate will be counted on closing date of receipt of application.

3. The candidates will have to make their own arrangement for interview.

4. The decision of Selection Committee will be final in all matters. The Selection Committee will not undertake any responsibility for sending a reply to the candidates if not selected

5. Applications should be made in English or Hindi containing the information as per Proforma.

6. Candidate is liable to be posted within the jurisdiction of Circle.

Superintending Engineer

Continued on page 5

## Ministry Labour and Employment

# Central Employment Exchange

Advertisement No. 02/2013

Date of Advertisement- 16.03.2013

Applications are invited for the following post (s) by various employers indicated in the advertisement up to 08.04.2013 in the prescribed format given at the end of the advertisement. In respect of applications sent only by post/speed post from the candidates residing in Assam, Meghalaya, Arunachal Pradesh, Mizoram, Manipur, Nagaland, Tripura, Jammu & Kashmir, Lahaul & Spiti district and Pangi sub division of Chamba district of Himachal Pradesh, A&N Islands or Lakshadweep or abroad the last date of receipt of application by the employer is 15.04.2013. Applications received after due date will not be considered.

Candidates are required to send their application direct to the respective employers.

**Application for the Post at Sl. No. 1 is to be sent to Director, Homeopathic Pharmacopoeia Laboratory, Kamla Nehru Nagar, Near NTH, Ghaziabad (U.P.)**

**1. One Scientific Assistant (Microbiology) - UR-1**

**Pay Band-1: Rs. 5200-20200/- + Grade Pay: Rs. 2800/-**

**Age: 30 years** (Relaxable in case of Govt. Servants up to 35 Years)

**Essential Qualification: -** M.Sc Degree with Microbiology from recognized university or Institution with one year experience.

**Duties:** To assist routine Laboratory work & Research work.

**Place of work:** Ghaziabad (U.P)

**Application for the Post at Sl. No. 2 is to be sent to Dy. Director (Rehab.) i/c Vocational Rehabilitation Centre for Handicapped, Mohalla Bag Mataji Ward No.7 Una (H.P.) 174303**

**2. One Vocational Instructor (Dress Making) - UR-1**

**Pay Band 2: Rs. 9300-34800/-+Grade Pay: Rs 4200/-**

**Age: 30 years.**

**Essential Qualification :** Matriculation or its equivalent. National Trade Certificate in the appropriate trade or National Apprenticeship Certificate in the appropriate trade or any other recognized equivalent qualification in the appropriate trade with atleast 3 years practical experience (preference will be given to candidates trained Advance/Central Training Institute for Instructor in the appropriate trade)

**Duties:** Evaluation and training of persons with disability. Proper maintenance and up keep of machinery, Tools & Equipment and raw materials etc., Developing adequate evaluation models and assign the functional suitability of the PWDs on the basis of stimulated work conditions etc.

**Place of work:** Una (H.P)

### CORRIGENDUM

**Reference Sl. No. 5 of Central Employment Exchange's advertisement No. 15/2012 published in Employment News dated 08.12.2012 for the post of Assistant Light Keeper (Sr. Scale) Name of Post and Essential Qualification to be read as**

**1. Name of Post:** Navigational Assistant Grade II

**2. Essential Qualification:** Diploma in Electronics or Telecommunication or Electronics and Communication or Electrical and Electronics from an institution recognized by Central Government or State Government.

(ii) One year's practical experience in the field of wireless communication (including installation and maintenance of wireless transmitters and receivers) or Aids to Navigation (including visual and Radio Aids to Navigation) automatic relay systems or diesel generator sets.

**3. Last date of submission of application is extended upto: 22/04/2013**

**Reference Sl. No. 8 of Central Employment Exchange's advertisement No. 16/2012 published in Employment News dated 29.12.2012 for the post of Navigational Assistant Grade II Essential Qualification to be read as**

**Essential Qualification:** Diploma in Electronics or Communication or Electronics and Communication or Electrical and Electronics from an institution recognized by Central Government or State Government.

(ii) One year's practical experience in the field of wireless communication (including installation and maintenance of wireless transmitters and receivers) or Aids to Navigation (including visual and Radio Aids to Navigation) automatic relay systems or diesel generator sets.

**2. Last date of submission of application is extended upto: 22/04/2013**

**Reference Sl. No. 1 of Central Employment Exchange's advertisement No. 11/2011 published in Employment News dated 11.06.2011 for the post of Skilled Worker to be treated as Cancelled.**

### INSTRUCTION AND ADDITIONAL INFORMATION FOR CANDIDATES

- Separate applications are required for each post quoting advertisement no. and Sl. no. of the post.
- Self-attested photocopies of educational/reservation categories/experience certificates etc., if any, should be enclosed with the application.
- Upper age limit relaxable for SC/ST/OBC, EX-SERVICEMEN, Physically Handicapped, Widow, Divorce Women and Women judicially separated from their husband and Govt. servants etc. as per rules.
- Only those SC/ST candidates who are not employed anywhere will be paid TA for attending interview, if admissible under rules.
- Application in any case should not be sent to Central Employment Exchange/Local Exchange.

### ABBREVIATIONS USED

UR: UN-RESERVED

### FORMAT OF APPLICATION FORM

- Advertisement No.
- Serial number of the post:
- Post applied for:
- Name of Employment Exchange where registered, if any
- Employment Exchange Registration No. if any
- Name of the applicant (Mr./Miss/Mrs.):  
In block letters
- Date of Birth: \_\_\_\_\_  
Date      Month      Year
- Father's Name: \_\_\_\_\_
- Address (in full): \_\_\_\_\_
- Nationality: \_\_\_\_\_
- Category to which belong (SC/ST/OBC) (ATTACH PHOTOCOPY OF CERTIFICATE)
- Whether Ex-Serviceman (Yea/No): \_\_\_\_\_
- Whether Physically Handicapped (Yes/No): \_\_\_\_\_
- Academic/technical professional qualifications (Beginning with matriculation level) attach photocopies of certificates

Sl. No.	Name of Exam.	Year of passing	Univ/Board	Div/Class/ Grade	Subjects	% of marks

15. Experience (attach photocopies of certificates in support of experience):

Sl. No.	Name of employer/Org.	Period From-To	Designation	Pay Scale/ Pay	Nature of duties	Reasons for leaving

I solemnly declare that the statement made by me in this form are correct to the best of my knowledge and belief.

**Dated:** \_\_\_\_\_

**Place:** \_\_\_\_\_

List of enclosures: 1.

2.

3.

(Signature of the candidate)

davp 23105/11/0008/12/13

EN 50/6

**No. A. 12025/1/2008-Estt-I/Estt.III**  
**Government of India**  
**Ministry of Health & Family Welfare**  
**(Establishment III Section)**  
**Nirman Bhawan, New Delhi**

One post of Assistant Director General (Nursing) a Group 'A' Gazetted, Non- Ministerial, in the pay scale of Rs.12000-375-16500(Pre-revised)/Pay Band-3 with Grade pay of Rs.7600/-(Revised) in the Ministry of Health & Family Welfare. The post is to be filled up on Deputation (including short-term contract) from the following:-

- Officers under the Central/State Governments/Union Territories/Autonomous Organizations:-  
 (a) (i) Holding analogous post on regular basis in the parent cadre/department; or  
 (ii) With 5 years service in the grade rendered after appointment thereto on a regular basis in the scale of pay of Rs.10000-15200(Revised PB-3, GP-6600) or equivalent in the parent cadre/department; or  
 (iii) With 10 years service in the grade rendered after appointment thereto on a regular basis in the scale of pay of Rs.8000-13500 (Revised PB-3, GP-5400) or equivalent in the parent cadre/department; **and**  
 (b) Possessing the following educational qualification & experience:-  
 (i) Master's Degree in Nursing from a recognized University/Institution or equivalent; and  
 (ii) Must be a Registered Nurse and Registered Midwife or equivalent with any State Nursing Council;

(iii) 10 years' experience in Nursing/ Teaching including Community Health services. .  
 [Period of deputation/contract including period of deputation/contract in another ex-cadre post held immediately preceding this appointment in the same or some other organization/ department of the Central Government shall ordinarily not exceed 4 years. The maximum age limit for appointment by deputation (including short term contract) shall be not exceeding 56 years as on the closing date of receipt of applications].

2. The officers selected for appointment on deputation basis shall be entitled to draw pay/deputation (duty) allowance in accordance with the existing instruction on the subject issued by the Government of India from time to time.

3. The eligible and interested officers may send their application in the given proforma (Annexure-I) through proper channel so as to reach the undersigned within **60 days** from the date of publication of this Advt. in the Employment News. While forwarding the application, it may please be ensured that the particulars of the candidate are verified and that he/she fulfills the eligibility conditions. The application should be forwarded along with upto date ACR dossier (or photocopies duly attested by Class-I officer), Vigilance & Integrity Certificate and statement that no minor/major penalty has been imposed upon the applicant during the last ten years. Applications received without any of these documents or not in prescribed format shall not be considered.

4. The duties of Assistant Director General (Nursing) in the Ministry of Health & Family Welfare are as per Annexure-II.

**(Anil Kumar)**  
**Under Secretary to Govt. of India**  
**Tel. No. 011-23061323**  
**ANNEXURE-I**

**CURRICULUM VITAE PROFORMA**

- Name and Address (in Block letters) :
- Date of Birth (In Christian era) :
- Date of retirement under Central/State Government Rules. :
- Educational Qualifications:
- Whether Educational and other qualifications required for the post are satisfied. (If any qualification has been treated as equivalent to the one prescribed in the rules state the authority for the same). :

	<b>Qualifications/ Experience required</b>	<b>Qualifications/Experience possessed by the Officer</b>
<b>Essential</b>	(1) (2) (3)	
<b>Desired</b>	(1) (2)	

6. Please state clearly whether in the light of entries made by you above you meet the requirement of the post.

7. Details of Employment in chronological order (Enclose a separate sheet duly authenticated by your signature if the space below is insufficient).

Office/Institution	Post Held	From	To	Scale of Pay and basic	Nature of duties (in detail)

8. Nature of present employment i.e. Ad-hoc or Temporary or Quasi-Permanent.:

9. In case the present employment is held on deputation/contract basis please state:-

- The date of initial appointment
- Period of appointment on deputation/contract
- Name of the parent Office/Organization to which you belong.

10. Additional details about present employment:-  
 Please state whether working under (indicate the name of your employer against the relevant column.)

- Central Government
- State Government
- Autonomous Organization
- Government Undertaking
- Universities
- Others

11. Please state whether you are working in the same Department and are in the feeder grade or feeder to feeder grade.

12. Are you in Revised Scale of pay? If yes, give the date from which the revision took place and also indicate the pre-revised scale.

13. Total emoluments per month now drawn

14. Additional information, If any, which you would like to mention in support of your suitability for the post. (This among other things may provide information with regard to (i) Additional academic qualifications (ii) professional training and (iii) Work experience over and above prescribed in the Vacancy Circular/Advertisement) (Note: Enclose a separate sheet, if the space is insufficient).

15. Please state whether you are applying for deputation (ISTC)/Absorption /Re-employment Basis. (Officers under Central/State Government are only eligible for "Absorption". Candidates of non-Government Organization are eligible only for Short Term Contract.)

16. Whether belongs to SC/ST :

**ANNEXURE-II**

**DUTIES ATTACHED TO THE POST OF ASSISTANT DIRECTOR GENERAL (NURSING)**

- All issues concerning to Nursing Services of Central Government institutions i.e. RMLH, SJH, LHMC (SK' & KS), CLTRI, JIPMER (Pondicherry), CIP (Ranchi), AIIMS & PGI (Chandigarh).
- Recruitment Rules of all nursing personnel in all Central Government institutions.
- Filling up and creation of Nursing Services position in Central Government institutions (Chief Nursing Officer and Nursing Superintendent and Deputy Nursing Superintendent).
- Nursing Management Information System including Central Government institutions.
- Delhi Nurses Colony.
- Training needs assessment of nursing service personnel.
- Continuing education Programme for the nursing service personnel (training of nurse in specialty area).
- Follow-up of High Power Committee recommendations with State Government and Government of India.
- International Assistance.
- World Health Organization Project.
- Collaboration with Indian Nursing Council.
- Any other activity assigned by the competent authority.
- Nursing Practice and Nursing standard.
- Remarks (The candidate may indicate information with regard to (i) Research publication and reports and special projects (ii) Awards/Scholarship/Official Appreciation (iii) Affiliation with the professional bodies/institutions/societies and (iv) any other information.(Note: Enclose a separate sheet, if the space is insufficient).



**Tata Memorial Centre**  
**Tata Memorial Hospital**

Parel, Mumbai 400 012

**Office of The Director (Academics)**

**Courses Recognized by Govt. of Maharashtra under Maharashtra State Board of Technical Education - MSBTE**

Course Name	Advance Diploma In Medical Imaging Technology	Advance Diploma In Radiotherapy Technology
<b>Course Details</b>	Two Years "Advance Diploma in Medical Imaging Technology" recognized by Govt. of Maharashtra will be conducted at this Hospital commencing from July 2013 for the Academic year 2013. <b>This is a comprehensive course with full-time schedule of lectures, demonstrations, practical and clinical experience in the delivery of imaging Technology. The course is designed to develop personnel to use modern Radiology equipments like X-ray, CT scan, MRI Sonography, mammography, &amp; Cathlab Machines in hospital.</b>	Two Years "Advance Diploma in Radiotherapy Technology" recognized by Govt. of Maharashtra will be conducted at this Hospital commencing from July 2013 for Academic year 2013. <b>This is a comprehensive course with full time schedule of lectures, demonstrations, practical and clinical experience in the delivery of Radiation therapy. The course is designed to develop personnel to use modern Radiotherapy equipments like Cobalt Units, Linear Accelerators, simulators, Brachytherapy systems and Mouldroom facilities in cancer treatment.</b>
<b>Eligibility Criteria</b>	Passed any B.Sc or B.Pharm.	Passed B.Sc. with 50% Marks aggregate (not less than 55% marks in Physics).
<b>B.Sc Result awaiting candidates can also apply. They will be considered subject to fulfillment of the above eligibility criteria on the day of Interview.</b>		
<b>Selection Criteria</b>	Selection will be based on the evaluation of performance in the interview.	Selection will be based on the evaluation which comprises of performance in the interview and the marks obtained in entrance examination

**Having mere basic qualifying marks will not fulfill the right for admission to this course.**

**AGE LIMIT** : Between 20 and 25 years. Relaxable by 5 years for SC / ST and 3 years for OBC candidates.

**DURATION** : **2 Years+(01 year In-Service Bond Mandatory)**  
**NON-SPONSORED** : **A Stipend @Rs. 6000/-p.m. will be paid during the training. Candidate will be required to execute a Bond to serve the Tata Memorial Hospital for a period of 1 year on remuneration @ Rs. 13000/- p.m. after successful completion of the training. Annual College tuition fee will be charged Rs.14, 000/- per year.**

**SPONSORED** : National candidate sponsored from Cancer Centres / Hospitals for training will not be paid any stipend or will not need to honour a bond. Training fee of Rs.14, 000/- will be charged per year.

The candidate has to pay examination fees to Maharashtra State Board of Technical Education (MSBTE) every year, as applicable. Selected candidates from outside Mumbai may be provided with hostel accommodation, only if they are available during training period on payment as applicable. The same candidates will be allowed to avail cafeteria facility, the charges of which will be paid by the candidates as applicable. In addition the candidates are requested to keep Rs. 3000/- as diet deposit and Rs. 1000/- as library deposit, as per rules of the Centre.

Candidates who are found to consistently perform below established standards will be terminated from the program after due process.

**Eligible candidates may send their application in the proforma given along with a recent passport size photograph affixed on the right hand top corner with attested copies of education qualifications, age and also, a non refundable Demand Draft of Rs. 100/- (Rs. 25/- for SC / ST candidates) in favour of Tata Memorial Centre, Parel, Mumbai on or before 30th April 2013 to Office of the Director (Academics), 13th Floor, Homi Bhabha Block, Tata Memorial Hospital, Parel, Mumbai 400 012.**

**During the period of training, the Trainee shall not apply for any post or any other courses / P.G. studies / Scholarship or appear for any examination or interview outside or if applied before start of the training, the candidate has to give proper information to this institution.**

Late & Incomplete application forms will be rejected. **DOWNLOAD APPLICATION FORMAT - <http://tmc.gov.in/>**

EN 50/11

Continued from page 4

**FORMAT OF APPLICATION**

- Post Applied for \_\_\_\_\_
- Name of the applicant as per Matriculation Certificate/ School Leaving Certificate (in Capital letters)-----
- Father's Name/Husband Name-----
- Date of Birth-----
- Age-----
- Marital status-----
- Nationality-----
- Whether belong to SC/ST/OBC/PH/Ex-Serviceman----- (Attach attested photocopy of Caste Certificate)
- Present postal address for correspondence -----
- Telephone / Mobile No.-----
- Educational Qualification ----- (Attached attested Certificate)
- Experience of the trade applied for -----
- Details of attested copies of certificate attached -----
- Remarks-----

Paste passport  
Size photo-  
graph duly  
attested by  
Gazetted  
Officer

I hereby certify that the above information is true to the best of my knowledge and if the authorities find anything false, my candidature is liable to be cancelled at any stage of recruitment/service.

**Place** ----- **Signature of applicant** -----  
**Date** ----- **EN 50/47**

I have carefully gone through the vacancy circular/advertisement and I am well aware that the Curriculum Vita duly supported by documents submitted by me will also be assessed by the Selection Committee at the time of selection for the post.

**Signature of the Candidate**  
**Date** ----- **Address:** -----

**E-mail** -----  
**Contact No.** -----

**Countersigned**

\_\_\_\_\_  
**(Employer with Seal)**

Government of India

# Department of Atomic Energy

Variable Energy Cyclotron Centre

1/AF, Bidhan Nagar, Kolkata – 700 064

Advertisement No.VECC-1/2013

Last date of receipt of application: 15.04.2013

Applications are invited for recruitment as Stipendiary Trainees (Category I & Category II) in Variable Energy Cyclotron Centre, Kolkata.

Category – I : Total No. Posts : 14

Post No.	Discipline	No. of posts	Educational Qualification
1.	Physics	9 (UR-3, UR-1 (VH*), SC – 3, ST – 1 & OBC – 1)	(A) B.Sc. with minimum 60% marks with following combination of subjects:- Physics as principal subject and among other two subsidiary subjects Mathematics is compulsory and any one from the following subjects:- Chemistry, Statistics, Electronics & Computer Science. [e.g.(a) Physics (Principal), Mathematics & Chemistry or (b) Physics (Principal), Mathematics & Computer Science or (c) Physics (Principal), Mathematics & Electronics or (d) Physics (Principal), Mathematics & Statistics.] OR (B) Candidates with minimum 60% marks in B.Sc. with Physics/ Chemistry / Mathematics/ Statistics/Electronics /Computer Science as subjects with equal weightage will also be considered. The combination of subjects in <b>B.Sc. should be as under:</b> (a) Physics, Mathematics & Chemistry or (b) Physics, Mathematics & Computer Science or (c) Physics, Mathematics & Electronics or (d) Physics, Mathematics & Statistics.
2.	Mechanical	1(OBC)	Minimum 60% marks in Diploma in Mechanical Engineering (3 years after SSC or 2 years after Higher Secondary.)
3.	Electronics/ Instrumentation	2 (UR – 1 & UR –1(HH**))	Minimum 60% marks in Diploma in Electronics/ Instrumentation Engineering (3 years after SSC or 2 years after Higher Secondary.)
4.	Computer	1(OBC)	Minimum 60% marks in Diploma in Computer Engineering (3 years after SSC or 2 years after Higher Secondary.)
5.	Civil	1(UR)	Minimum 60% marks in Diploma in Civil Engineering (3 years after SSC or 2 years after Higher Secondary.)

\* Reserved for Visually Handicapped (VH).

\*\* Reserved for Hearing Handicapped (HH). Hearing Handicapped means loss of 60 decibels or more in the better ear in the conversational range of frequencies.

Category – II: Total No. Posts: 44

Post No.	Discipline	No. of posts	Educational Qualification
1.	Plant Operator	5 (UR- 1#, OBC-2 SC-1 & ST – 1) #Specifically for Crane/Forklift operation	Higher Secondary (10+2) in Science stream with a minimum 60% marks in aggregate and should have Physics, Chemistry & Mathematics subjects.
2.	Library	1 (OBC)	Higher Secondary (10+2) in Science stream with a minimum 60% marks in aggregate and should have Physics, Chemistry and Mathematics subjects (certificate course in Library Science and experience in Library will be preferred at the discretion of this Centre).
3.	Engineering Draughting	OBC -1(OH*#)	SSC with a minimum 60 % marks in aggregate plus trade certificate of minimum 1 year duration in relevant trade from a recognized Institution.
4.	Fitter	10 (UR- 6, OBC – 1 & SC – 3)	
5.	Electronics	15 (UR-2, UR-1(OH*#) OBC – 4, SC – 5 & ST – 3)	
6.	Electrical	3(UR)	
7.	Turner	2 (UR- 1 & OBC-1)	
8.	Air Conditioning	3(UR)	
9.	Machinist	3 (UR-2 & OBC-1)	
10.	Mechanic (Motor Vehicle)	1(UR)	

\*# Reserved for Orthopedically Handicapped (OH). Physical deformity should not be less than 40%.

Legend:

"UR" – Unreserved, "OBC" – Other Backward Classes, "SC"- Scheduled Castes, "ST" – Scheduled Tribes, "VH"-Visually Handicapped, "HH"- Hearing Handicapped & "OH"- Orthopedically Handicapped, "DAE"- Department of Atomic Energy, "VECC"- Variable Energy Cyclotron Centre.

1. Age Limit as on 15.04.2013:

(i) For Category I Stipendiary Trainees: Minimum age will be 19 years and maximum age will be 24 years.

(ii) For Category II Stipendiary Trainees: Minimum age will be 18 years and maximum age will be 22 years.

2. Relaxation in upper age limit:

(i) The upper age limit prescribed above is relaxable for the posts reserved for SC/ST &amp; OBC as under:

Upto a maximum of three years if a candidate belongs to OBC category.

Upto a maximum of five years if a candidate belongs to SC/ST category.

(ii) For Persons with Disabilities:

(a) Upper age-limit shall be relaxable by ten years (15 years for SCs/STs and 13 years for OBCs).  
(b) Relaxation in age-limit shall be applicable irrespective of the fact whether the post is reserved or not, provided the post is identified suitable for persons with disabilities.

(iii) Relaxation in the upper age limit of 5 years shall be admissible to all persons who had ordinarily been domiciled in Kashmir division of the State of Jammu &amp; Kashmir during the period from the 1st day of January, 1980 to 31st day of December, 1989 provided that the relaxation in the upper age limit for appearing at any examination shall be subject to the maximum number of chances permissible under the relevant rules.

Any person intending to avail of relaxation of age limit admissible under the above provision shall

submit a certificate from:

(a) the Dist. Magistrate in the Kashmir division within those jurisdiction he had ordinarily resided; or

(b) any other authority designated in this behalf by the Government of Jammu &amp; Kashmir to the effect that he had ordinarily been domiciled in the Kashmir division of the State of Jammu &amp; Kashmir during the period from the 1st day of January, 1980 to 31st day of December, 1989.

(iv) Relaxation in the upper age limit of 5 years shall be admissible to children/family members of those who died in the 1984 riots.

**Physical Standards :** Minimum Height: 160 cms. Minimum weight: 45.5 Kgs. (Relaxable if the candidate is otherwise medically fit)**Total Duration of Training Period :**

Category I : Two Years

Category II : Two Years

**Stipend During Training :****Category I** : (i) ₹ 9,300/- p.m. for 1st year.

: (ii) Yet to be finalized for 2nd year.

**Category II** : (i) ₹ 6,200/- p.m. for 1st year

: (ii) ₹ 7,200/- p.m. for 2nd year

In addition to above, both Category I &amp; II trainees will be given a one time Book Allowance of ₹ 1,500/-.

**Accommodation:** The Trainees will have to make their own arrangement for stay during the training. However, in exceptional cases, hostel/sharing accommodation will be provided by this Centre subject to availability.**Written Examination & Personal Interview:**

Written Examination of one-hour duration will be conducted and will comprise of objective type questions. Option will be given in written examination to answer either in English or Hindi. The syllabus for the said examination will be based on subjects of Diploma/B.Sc. level for Category-I and of SSC/HSC/ITI level as the case may be for Category-II. The candidates who qualify in the Written Examination shall be shortlisted for Personal Interview and the names of the shortlisted candidates will be displayed in the website of this Centre at a later date. Personal interview will be held in this Centre at a later date, call letters for which will be sent separately. Candidates should come prepared to stay in Kolkata overnight for the Written Examination/Personal Interview.

Final selection and ranking will be on the basis of performance of the candidate in the personal interview and no weightage will be given for marks scored in the written examination. The decision of this Centre in this regard is final.

**Scope of Training :** Selected candidates will be given training in this Centre and other places as decided by this Centre in various aspects of relevant trades, as per prescribed syllabi of each trade and for meeting the stringent requirements of this Centre. The candidate will not have choice/option for any particular training programme/training place.

During the period of training and thereafter, candidates may be required to work in round-the clock shift including night shift.

**Grade After Successful Completion of Training :**

Upon successful completion of training, the Cat.I trainees will be considered for absorption in the post of Scientific Assistant/C and Cat.II trainees will be considered for absorption in the post of Technician/B or Technician/C depending on their performance during the period of training and personal interview to be held at the end of the training. Based on the performance during training &amp; personal interview, additional increments may be given on appointment.

**Details of Emoluments:**

Trainees	Post	Corresponding Pay Bands	Corresponding Grade Pay	Corresponding Initial Pay in the Pay Band	Total Emoluments (approx)
Category-I	Scientific Assistant/C	₹ 9300-34,800/-	₹ 4,600/-	₹ 12,540/-	₹ 37,375/-
Category-II	Technician/B	₹ 5200-20200/-	₹ 2,000/-	₹ 6,460/-	₹ 18,121/-
	Technician/C	₹ 5200-20200/-	₹ 2,400/-	₹ 7,510/-	₹ 22,770/-

**Bond :** Selected candidates will have to execute a bond to complete the training and serve VECC, Kolkata or any of the constituent Units of DAE, if offered appointment after the training, for a period of 4 years after absorption. A trainee who fails to complete the training or serve VECC, Kolkata/ Department of Atomic Energy for 4 years, if offered appointment, will be liable to pay to VECC, Kolkata/ Department of Atomic Energy a sum equivalent to entire aggregate amount of stipend received by him during the training along with interest thereon.**How to apply:**

1. Application should be submitted in the proforma given herewith.

2. Application should preferably be type written on A4 size paper.

3. The Application and the outer cover should be superscribed as "Application for the post No. \_\_\_\_\_ of Category I/Category II against Advertisement No.VECC-1/2013".

4. Only one application should be submitted for one post. If candidate wishes to apply for more than one post, separate application should be submitted for each post.

**COPIES OF CERTIFICATES:**Candidates should submit along with their application attested **SINGLE COPY** of :

a) Certificates pertaining to Educational qualifications/experience and technical/professional qualifications (supported by appropriate mark sheets indicating the subjects offered at the examinations).

b) Certificate of date of birth.

c) SC/ST/OBC certificates in the prescribed proforma applicable for Central Government employment. OBC certificate should be issued by authorized authority in the prescribed format with non-creamy layer certificate and the caste/community should have been included in the Central lists of Other Backward Caste. The crucial date for determining the OBC non-creamy layer certificate will be the last date of receipt of the application (i.e.15.04.2013). OBC for the purpose of AGE RELAXATION AND RESERVATION will mean "persons of OBC categories not belonging to the Creamy Layer" as defined in Government of India, Department of Personnel &amp; Training OM No.36012/22/93-Estt.(SCT) dated 08.09.93 and duly modified vide Government of India, Department of Personnel &amp; Training OM No.36033/3/2004-Estt.(Res) dated 09.03.2004.

d) Disability Certificate from the appropriate authority regarding physical disability (applicable to persons with disability).

e) Certificate regarding domiciled in Kashmir Division from 01.01.1980 to 31.12.1989 (if claimed relaxation).

f) Certificate to the effect that they have been affected by 1984 riots (if claimed relaxation).

**IMPORTANT REQUIREMENT OF PH CERTIFICATE**

i) According to the Persons With Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Rules, 1996 notified on 31/12/1996 by the Central Government in exercise of the powers conferred by sub-section (1) and (2) of Section 73 of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 (1 of 1996), a disability certificate shall be issued by a Medical Board duly constituted by the Central or a State Government. The Central/State Government may constitute a Medical Board consisting of at least three members, out of which, at least, one member shall be a Specialist from the relevant field.

ii) The certificate would be valid for a period of 5 years for those whose disability is temporary. The Medical Board shall indicate the period of validity of the certificate where there are chances of variation in the degree of disability. For those who acquired permanent disability, the validity can be shown as Permanent. On representation by the applicant, the Medical Board may review its decision having regard to all the facts and circumstances of the case and pass such orders in the matter as it thinks fit.

iii) Those SC/ST/OBC persons with disabilities selected on their own merit without relaxed standards alongwith other candidates, will be considered against unreserved vacancies provided the post is identified for persons with disability of relevant category.

**NOTE :** a) Candidates should enclose one extra copy of recent passport size photograph alongwith the application.

b) SC/ST candidates called for Written Examination will be paid Travelling Allowance as per rules. However, Travelling Allowance is not admissible to those SC/ST candidates who are already in Central/State Government, Central/State Government Corporation, Public Sector Undertakings,

Continued on page 7

**Continued from page 6**

Local Government Institutions and Panchayat services.  
 c) Personal interview of the candidates will be held in the Variable Energy Cyclotron Centre, Kolkata premises.  
 d) Candidates selected against this advertisement are likely to be posted at VECC, Kolkata but are liable to serve in any part of India and in any constituent unit of the Department of Atomic Energy, or in any other establishment as desired by the Government of India.  
 e) The vacancies shown above are provisional and subject to variation. The filling up of vacancies indicated in the advertisement is also subject to the approval of Competent Authority and may not be filled up, if decided otherwise in terms of the orders issued by Government from time to time.  
 f) The nature of duties to be performed by the above categories of trainees will involve working in round-the-clock shift duties, in operational plants and areas.  
 g) This advertisement is available on VECC, Kolkata Website at [www.vecc.gov.in](http://www.vecc.gov.in). h) Persons who are appointed against the above posts, will be covered under the New Contributory Pension Scheme as notified by the Government of India, Ministry of Finance, Department of Expenditure vide Notification No. F.No.5/7/2003-ECB & PR dated 22.12.2003.  
 i) Persons working under the Central/State Govt./Public Sector Undertakings should submit their applications through proper channel. They may, however, send an advance copy of the application along with enclosures as detailed above to the address given below.  
 j) Complete applications should be sent to the Assistant Personnel Officer (GA), Variable Energy Cyclotron Centre, Department of Atomic Energy, Sector – 1, Block – AF, Bidhan Nagar, Kolkata – 700 064 so as to reach him on or before 15.04.2013.

**WARNING:**  
 Applications which are not in conformity with the requirements indicated and which are not in the prescribed format or are not accompanied by the attested copies of certificates, photograph, will be rejected. Mere fulfilling of requirements as laid down in the advertisement does not qualify a candidate for written test/interview. In case the response is more, the screening will be restricted to those with higher percentage of marks, as decided by the Competent Authority in this Centre. No correspondence will be entertained in this regard.  
**Note:** Record of the non-selected candidates shall not be preserved beyond 6 months from the date of formation of select list.

**CANVASSING IN ANY FORM SHALL BE A DISQUALIFICATION**

**PROFORMA FOR APPLICATION**

**FOR OFFICE USE ONLY:**

Application No.  
 Date of Receipt.  
 1. Advertisement No. : VECC-1/2013  
 2. (i) Category No.  
 (ii) Post No.:  
 3. Name in full (as per SSC certificate):  
 (in CAPITAL LETTERS)  
 4. Gender:  
 5. Father's name :  
 6. a) Date of birth (in Christian era):

Paste recent passport size photograph duly signed by the candidate across the photograph

D	D	M	M	Y	Y	Y	Y

b) Age as on 15.04.2013 : \_\_\_\_\_ Year(s) \_\_\_\_\_ Month(s) \_\_\_\_\_ Day(s)  
 7. Religion:  
 8. Nationality :  
 9. Marital Status:  
 10. Whether the applicant belongs to SC/ST/OBC ? :  
 11. Whether the applicant domiciled in Jammu & Kashmir during the period from 01.01.1980 to 31.12.1989?:  
 12. Whether the applicant is a family member of those who died in 1984 riots?:  
 13. Whether the applicant belongs to minority community?:  
 14. (a) Address for correspondence in **CAPITAL LETTERS**:  
 House No./Name: Locality/Street:  
 Town/Village: Police Station:  
 Post Office: District:  
 Pin Code: State:  
 E-mail: Telephone/Mobile No.:  
 (b) Permanent Address in CAPITAL LETTERS:  
 House No./Name: Locality/Street:  
 Town/Village: Police Station:  
 Post Office: District:  
 Pin Code: State:  
 E-mail: Telephone/Mobile No.:

15. Whether Physically Handicapped?: (Please mention 'YES' or 'No')  
 If yes, please mention:  
 a) Type of Physical Disability:  
 b) Nature of Disability:  
 c) Percentage of Disability:  
 (as certified by the Competent Medical Authority in the PH Certificate)

16. a) Educational and Professional/Technical qualifications from SSC onwards :-

Name of Examination passed	University/Board/Institution	Year	Subjects	Duration of course	% of marks secured	Class/Grade/Division

16.b) Indicate the course of study, if any, the applicant is continuing presently :

Course Name	University/Board/Institution	Full Time/Part Time	Duration of the Course	No. of Semester/subjects completed	% of Marks obtained

17. Experience (particulars of all previous and present employment are to be furnished):-

Name & Address of Employer	Post Held	Types of Employer	Period of Service in DD/MM/YYYY format		Permanent or Temporary	Reasons for leaving
			From	To		

18. Total experience as on 15.04.2013: \_\_\_\_\_ Year (s) \_\_\_\_\_ Month (s) \_\_\_\_\_ Day (s)  
 19. Details of relatives already employed in Department of Atomic Energy or its Constituent units:-

Name of relative	Relationship	Unit in which employed	Post held

20. Are you under any contractual obligation to serve the Central / State Government / Any other Public Sector Undertaking / Autonomous Bodies? If so, please furnish details:  
 21. Any other additional information:  
 22. List of documents attached:  
 1. Application duly filled-in and signed: YES / NO  
 2. Passport size photograph duly signed across and affixed on the application: YES /NO  
 3. One extra copy of recent passport size photograph attached with the application (compulsory) : YES/NO  
 4. Attested copies of each of the following certificates are attached:  
 a) Date of Birth Certificate: YES/ NO  
 b) SC/ST/OBC Certificate (if applicable): YES/ NO  
 c) Certificate of Disability (if applicable): YES/ NO  
 d) Copies of all marksheets: YES/ NO  
 e) Certificates of Educational & Professional qualifications: YES/ NO  
 f) Experience Certificate (if applicable): YES/ NO  
 g) Domicile certificate of Jammu & Kashmir (if applicable): YES/ NO  
 h) Certificate related to 1984 riots (if applicable): YES/ NO

**23. DECLARATION:**  
**I hereby declare that the above information is factually correct to the best of my knowledge. I also understand that I will be disqualified if any of the information furnished above is found to be incorrect.**

Place: \_\_\_\_\_ (Signature of the candidate)  
 Date: \_\_\_\_\_ Name: \_\_\_\_\_

**Coastal Aquaculture Authority**

Ministry of Agriculture, Government of India  
 2nd Floor, Shastri Bhavan Annexe  
 26, Haddows Road, CHENNAI - 600 006

**Corrigendum**

The last date of submission of application form for the following posts has further been extended for **45 days** from the date of publication of this advertisement.

Advertisement No.	Name of the post & Number of Posts	Date of publication in Employment News	Mode of Recruitment	Pay band, Scale of Pay & Grade pay
3-6/2012-Admn	Steno Gr. "C" - One Post	22-28 <sup>th</sup> December, 2012	Deputation	PB-2, Rs. 9,300-34,800 + Grade Pay Rs.4,200/-
3-6/2012-Admn	Sr. Clerk- One Post	22-28 <sup>th</sup> December, 2012	Deputation	PB-1, Rs. 5,200-20,200+ Grade Pay Rs.2,400/-

For application and other details: Please refer the Employment News dated 22 - 28 December, 2012 or visit our website [www.caa.gov.in](http://www.caa.gov.in)

**K. Srinivasan Babu**  
 Superintendent  
 EN 50/23

**No. DFSS/4/11/2013**  
**Government of India**  
**Ministry of Home Affairs**

**Directorate of Forensic Science Services**

It is proposed to fill up one post of Senior Scientific Assistant (Neutron Activation Analysis) (Group 'B, Non - Gazetted, Non - Ministerial) in the pay band PB-2 Rs.9,300 -34800/- with Grade Pay Rs.4200/- at the Central Forensic Institute, Pune under Directorate of Forensic Science Services, Ministry of Home Affairs, on deputation basis  
 2. The eligibility conditions, experience and job requirements for the post are shown in Annexure-I given. The maximum age limit for appointment by transfer on deputation shall be not exceeding 56 years of age on the closing date for receipt of applications.  
 3. The pay of officers, selected for appointment on deputation, and various other conditions will be governed in accordance with the orders/ instructions issued in this regard from time to time by the Government of India.  
 4. The applications in the prescribed proforma in Annexure -II given, in respect of suitable, eligible and willing officials, who can be relieved immediately, if selected, may please be sent, along with up-to-date ACRs of last five years and as also the certificate endorsed at Annexure - II duly signed by the Competent Authority, at the following address within a period of **TWO MONTHS** from the date of issue of this Advt. :-  
 The Director - cum - Chief Forensic Scientist,  
 Directorate of Forensic Science Services,  
 Block No.-9, Floor-8,  
 CGO Complex, Lodhi Road,  
 New Delhi-110 003.

5. The candidates who apply for the post will not be allowed to withdraw their candidature subsequently.  
 6. Applications received after the last date or without the required documents will not be entertained.

**ANNEXURE-I**

1. **Name of the Post:** Senior Scientific Assistant (Neutron Activation Analysis) : One post.  
 2. **Scale of Pay :** Pay Band PB-2 Rs. 9,300 - 34,800/- with Grade Pay Rs.4200/-  
 3. **Eligibility :** Officers under the Central / State Government / Universities / Recognized Research Institutes / Statutory/ Semi - Government or Autonomous Organizations:  
 a) holding analogous posts on regular basis;  
 b) possessing the following educational qualifications and experience:  
**Essential:**  
 i) M.Sc. degree in Chemistry/Physics/Forensic Science with Chemistry or Physics as one of the subjects at B.Sc. level from a recognized University or equivalent.  
 (Period of deputation including period of deputation in another ex-cadre post held immediately preceding to this appointment in the same or some other organization/department of the Central Govt. shall ordinarily not exceed 3 years.)  
 4. **Duties and responsibilities:**  
 To assist the scientific/ reporting officers starting from collection of scientific evidence from crime scenes, receiving case property, making entry/ documentation of case files, scientific analysis of the crime exhibits/ other case related aspects like statistical interpretation of data etc.

**ANNEXURE -II**

Application for appointment to one post of Deputy Director (Explosives) (Group 'A' Gazetted, Non-Ministerial) on deputation basis in the Central Forensic Science Laboratory, Chandigarh/Hyderabad under Directorate of Forens Science Services, Ministry of Home Affairs, New Delhi.  
 1. Name and Address in Block letters :  
 2. Date of Birth :  
 3. Date of retirement under Central/State Government Rules. :  
 4. Educational Qualifications  
 5. Whether Educational and other qualifications required for the post are satisfied. (If any qualification has been treated as equivalent to the one prescribed in the rules state the authority for the same).

Essential Desirable	Qualifications required	Qualification/Experience possessed

6. Please state clearly whether in the light of entries made by you above you meet the requirement of the post.  
 7. Details of Employment in chronological order (Enclose a separate sheet duly authenticated by your signature if the space below is insufficient.

Office/Org./Deptt.	Post Held	From	To	Scale of Pay & basic pay	Nature of duties

8. Nature of present employment i.e. Ad-hoc or temporary or Permanent or on deputation.  
 9. In case present employment is held on deputation/contract basis please state:-  
 (a) The date of initial appointment  
 (b) Period of appointment on deputation/contract  
 (c) Name of the parent Office/Organization to which you belong.  
 10. Additional details about present employment;-  
 Please state whether working under  
 (a) Central Government  
 (b) State Government  
 (c) Universities  
 (d) Recognized Research Institute  
 (e) Statutory Organization  
 (f) Semi-Government Organization  
 (g) Autonomous Organization  
 11. Are you in Revised Scale of Pay? If yes, give the date from which the revision took place and also indicate the pre-revised scale.  
 12. Total emoluments per month now drawn  
 13. Additional information, If any, which you would like to mention in support of your suitability for the post. Enclose a separate sheet, if the space is insufficient.  
 14. Whether belong to SC/ST  
 15. Remarks.

**Date** \_\_\_\_\_ (Signature of applicant)  
**Address:** \_\_\_\_\_

**Certificate to be given by Head of Office of the applicant:**  
 1. It is certified that the particulars furnished by the officer are correct.  
 2. It is certified that no disciplinary / vigilance case is pending or contemplated against the applicant and he is clear from the vigilance angle.  
 3. His integrity is certified.  
 4. It is certified that no major or minor penalties have been imposed on the officer during the last 10 years.

**Govt. of India  
(Ministry of Defence)  
11 Infantry Divisional Ordnance Unit  
Pin- 909011 C/O 56 APO**

Applications from eligible Indian national candidates are invited for recruitment to the following posts :-

S. No.	Name of the post	Number of Vacancies	Pay Scale	Age Limit (in years)	Education and other qualification
1.	Mazdoor	02 Vacancies (01 ST + 01 OBC) which includes 01 vacancy reserved each for Ex-Servicemen and Physically Handicapped (Hearing Handicapped)	5200-20200 + 1800 GP	<b>OBC-</b> 18-28 Yrs <b>ST</b> - 18-30 Yrs <b>ESM-</b> Service rendered+ 03 Yrs <b>Hearing Handicapped</b> - 18-35	As given below (*)

(\*) Education and other Qualification in respect of Mazdoor post: (a) Matriculation (b) Individual should be in good and sound health

- Nature of post** : Candidates selected will remain on probation for a period of 02 years. The posts are purely temporary but are likely to be made permanent and eligible for All India Service.
- In case the candidate was previously considered under relaxation rules and rejected finally, the details must be mentioned in the application.
- Documents to be attached with the application**
  - Two copies of Passport size photographs, one of which will be pasted on the application & another will be pasted on the acknowledgement card.
  - One self addressed stamped envelope of size 12x28 cms of registered value.
  - Attested true photocopies of the following :-
    - Birth Certificate or School Leaving Certificate showing date of birth.
    - Certificate issued by the competent authority in support of the claim of OBC/ST/Ex-Men/HH.
    - Current employment exchange registration Card No, if any.
    - And any other relevant documents in support of information furnished in the application form.
- Application should be addressed to Commanding Officer 11 Inf DOU, PIN-909011 C/O 56 APO alongwith self-addressed envelope affixed with postage stamp of Rs. 25/- Last date of receipt of application is **21 days** including Sunday and holiday from the publication of this advertisement in Employment News. The envelope containing the application form should be marked as "Application for the post of Mazdoor" (Ex Servicemen and Physical Handicapped (HH)).
- The envelope containing the application should be marked boldly **'For the post of Mazdoor (OBC/ST/Ex-Serviceman/Hearing Handicapped)**.
- Physical Standards Required for the post of Mazdoor:** Candidates are required to be physically fit to perform the duties of Mazdoor and should meet the following standards:-
  - 1.6 Km Run
  - Two load carrying tests
- Candidates will be allowed to appear in the physical test only if they produce the admission Card at the time of physical test.
- Candidates will be allowed to appear in written test/interview only after qualifying the physical test.
- No TA/DA for the recruitment test will be paid. Candidates will make their own boarding and lodging arrangement for tests.
- This unit will not be responsible for any kind of postal delay.
- Disqualification:** The following act/omission would render a candidate disqualified :-
  - Furnishing of false, inaccurate or tampered information or documents, or
  - Obtaining support of his candidature by any means, or
  - Impersonation by any person, or
  - Submitting fabricated documents, or
  - Making statements which are incorrect or false or suppressing material information, or
  - Resorting to any other irregular or improper means in connection with his candidature for the selection, or
  - Improper filling of application.
- Important:** Candidates must ensure that no column is left blank or wrongly filled. Applications not filled correctly will be liable to be rejected and the onus of such rejection would be on the candidate himself. The unit administration will not entertain any claim after such rejection. The application format be typed on a foolscap paper /A-4 size paper.
- ST/OBC** candidates who apply against unreserved vacancies will not be given the concession of age.
- Individual is required to bring all original certificates only on the date of physical test/Interview. Documents will be checked first. In case documents are incomplete individual will not be allowed for undertaking the physical test, practical test and interview and would automatically stand rejected.
- No TA/DA for the test will be paid. Candidates will make their own boarding/loading arrangements for test /interview.
- Merely fulfilling the basic essential qualification requisites does not entitle any person to be automatically called for test /interview.
- No extra weightage will be given for additional/higher qualification in the recruitment.
- List of selected candidates along with those in the reserve panel will be displayed outside unit on notice board after approval of the board proceedings by the convening authority.
- WARNING** All the candidates are warned to be careful from self styled agents and also requested to report to the Commanding Officer, 11 Infantry Divisional Ordnance Unit against any malpractice seen/observed by them.
- Unit will not be responsible to pay any damage in case of injury/death of candidate during physical test.
- 11 Infantry Division Ordnance Unit reserves the right to withdraw the vacancies and terminate the appointment during the period of probation without assigning any reason.
- Any attempt by any candidate to influence the selection process may result in disqualification of the candidate for taking further part in the selection process

**APPLICATION FORM FOR THE POST OF MAZDOOR**

- Name of applicant (IN BLOCK LETTERS) :
- Father's Name :
- (a) Occupation :
- (b) Service/P/T.No :
- (c) Department where serving :
- (d) Nationality :

- Residential Address :
- Date of Birth (In Christian Era) : Years Months Days  
(Age as on \_\_\_\_\_ 2013 which is last date of receipt of application)
- Appearing as ST/OBC/Ex-Serviceman/PHP(HH):
- Education Qualification :
- Whether registered with Employment Exchange If yes, Registered Number & name of Employment Exchange. :
- Permanent Address :
- Address of correspondence :

**Latest Passport size photograph duly attested by gazetted Officer**

**DECLARATION**

I declare that no criminal case is pending against me in any Court of Law within India. I also declare that information given in the application form is correct to the best of my knowledge. If any information is found false in my application form, it is liable to be rejected without any intimation. If particulars mentioned by me are found false at any stage my service will be terminated without any notice.

**Date:** **2013** **(Signature of the Applicant)**

**ACKNOWLEDGEMENT / ADMISSION CARD FOR THE POST OF MAZDOOR (IN 11 INF DOU)**

- Your application has been accepted / rejected due to the following reasons :-
  - Application form is incomplete.
  - Incomplete /wrong documents.
  - Photograph not pasted / attested.
  - More than one application forms are received.
- Registration No.
- Date of Examination : 2013
- Time of reporting :
- Place of Physical Test/Interview :11 Infantry Divisional Ordnance Unit C/O 56 APO, ( Distt - Ahmedabad, GUJARAT )Near Hanuman Camp Shahibaugh
- Applicant should bring original documents for age proof / educational qualification / caste certificate on the date of examination / interview.
- In case of Physically Handicapped candidates, medical documents duly signed by CMO of District showing percentage of disability and nature of physical disability be brought. In case of Ex-serviceman, Identity card, personal discharge Book will be brought in original.

**Latest passport size photograph duly attested by Gazetted Officer**

**NAME & ADDRESS OF THE INSTITUTE / HOSPITAL**

**Certificate No.** \_\_\_\_\_ **Date** \_\_\_\_\_

**DISABILITY CERTIFICATE**

This is certified that Shri/Smt/Kum \_\_\_\_\_ son/wife/ daughter of Shri \_\_\_\_\_ age \_\_\_\_\_ Sex \_\_\_\_\_ identification mark(s) \_\_\_\_\_ is suffering from permanent disability of following category:

- Locomotor: or cerebral palsy:
    - BL-Both legs affected but not arms.
    - BA-Both arms affected
    - BLA-Both legs and both arms affected
    - OL-One leg affected (right of left)
    - OA-One arm affected
    - BH-Stiff back and hips (Cannot sit or stoop)
    - MW-Muscular weakness and limited physical endurance.
  - Blindness or Low Vision:
    - B-Blind
    - PB-Partially Blind
  - Hearing impairment:
    - D-Deaf
    - PD-Partially Deaf
- (Delete the category whichever is not applicable)

**Recent Photograph of the candidate showing the disability duly attested by Chairperson of the Medical Board**

2. This condition is progressive / non-progressive / likely to improve / not likely to improve. Re-assessment of this case is not recommended / is recommended after a period of \_\_\_\_\_ years \_\_\_\_\_ months.\*

**3. Percentage of disability in his/her case is ..... percent.**

**4. Sh./Smt./Kum.....meets the following physical requirements for discharge of his/her duties:-**

- |  |        |
|--|--------|
| (a) F-can perform work by manipulating with fingers. | Yes/No |
| (b) PP-can perform work by pulling and pushing.      | Yes/No |
| (c) L-can perform work by lifting.                   | Yes/No |
| (d) KC-can perform work by kneeling and crouching.   | Yes/No |
| (e) B-can perform work by bending.                   | Yes/No |
| (f) S-can perform work by sitting.                   | Yes/No |
| (g) ST-can perform work by standing.                 | Yes/No |
| (h) W-can perform work by walking.                   | Yes/No |
| (i) SE-can perform work by seeing.                   | Yes/No |
| (j) H-can perform work by hearing/speaking.          | Yes/No |
| (k) RW-can perform work by reading and writing.      | Yes/No |
- (Dr \_\_\_\_\_) (Dr \_\_\_\_\_) (Dr \_\_\_\_\_)  
Member Member Member  
Medical Board Medical Board Medical Board

Countersigned by  
District Medical Officer/Medical Superintendent /  
Head of the Govt. General Hospital (State Govt.Hospital)  
With stamp

**\*Strike out which is not applicable.  
davp 10202/11/0310/1213**

**EN 50/62**

**No.3/5/2012-Admn.  
Government of India  
Ministry of Water Resources**

**Shram Shakti Bhawan, Rafi Marg, New Delhi**

Applications are invited for filling up of one post of Clerk [earlier designated as Junior Clerk (Coupon)] in the pay scale of Rs.3050-75-3950-4590/- (Pre-Revised) now Rs.5200-20200/- + 1900 (Grade Pay) in the Departmental Canteen in the Ministry of Water Resources by transfer on deputation from amongst employees of the Central Government possessing the following **qualifications and experience:-** i) holding analogous posts on regular basis; or, ii) with at least six years of regular service in the pay scale of Rs. 2610-3540/- (Pre-Revised) now Rs. 5200-20200/- + 1800 (Grade Pay); and iii) be a matriculate or equivalent from a recognized School/Institution and possessing one year experience in a clerical job. (The maximum age limit for deputation is 56 years as on the closing date of receipt of applications). **Period of deputation** The period of deputation including period of deputation in another ex-cadre post held immediately preceding this appointment in the same or some other organization/department of the Central Government shall ordinarily not exceed 3 years. The pay of the officers will be regulated in accordance with the Department of Personnel & Training's O.M. No. 2/99/91-Estt. (Pay.II), dated **05.01.1994**, as amended from time to time. **Last date for receipt of applications:** The applications of eligible and willing candidates may be forwarded in the given proforma, to the Under Secretary (Admn.), Ministry of Water Resources, Room No.424, Shram Shakti Bhawan, Rafi Marg, New Delhi - 110001 alongwith up-to-date CR dossiers/Performance Reports and vigilance clearance **within 60 days** of the date of issue of this advt.

**CURRICULUM VITAE PROFORMA**

**Annexure-I**

- Name and Address (in Block letters) :
- Date of Birth (In Christian era) :
- Date of retirement under Central/State Government Rules. :

- Educational Qualifications:
- Whether Educational and other qualifications required for the post are satisfied. (If any qualification has been treated as equivalent to the one prescribed in the rules state the authority for the same). :

	<b>Qualifications/ Experience required</b>	<b>Qualifications/Experience possessed by the Officer</b>
<b>Essential</b>	(1) (2) (3)	
<b>Desired</b>	(1) (2)	

- Please state clearly whether in the light of entries made by you above you meet the requirements of the post.
- Details of Employment in chronological order (Enclose a separate sheet duly authenticated by your signature if the space below is insufficient.)

Office/Institution	Post Held	From	To	Scale of Pay and basic pay	Nature of duties (in detail)

- Nature of present employment i.e. Ad-hoc or Temporary or Quasi- Permanent or Permanent.:
- In case the present employment is held on deputation/contract basis please state:-
  - The date of initial appointment
  - Period of appointment on deputation/contract
  - Name of the parent Office/Organization to which you belong.
- Additional details about present employment:-  
Please state whether working under (indicate the name of your employer against the relevant column.)
  - Central Government
  - State Government
  - Autonomous Organization

**Continued on page 9**



# Recruitment Notice : Civilians

Govt of India  
Min. of Defence  
HQ MIRC, Ahmadnagar (MH) -414110  
Employment Notice No. 01 /2013

1. Applications are invited in the prescribed Proforma given below from the persons (Indian Nationals) for filling up the direct recruitment Group 'C' vacancies at Headquarters, The Mechanised Infantry Regimental Centre, Ahmednagar who fulfils the following terms and conditions :-

S. No.	Name of Post	No. of vacancies	Reserved for	Scale of Pay as per 6th CPC (i.e. Pay Band, Scale and Grade Pay)	Qualification and experience for the post
1.	Cook	03 02 02	Gen -01 OBC-04 *OBC-02 *Reserved for Ex-serviceman	PB-1 -Rs.5200-20200 with Grade Pay of Rs.1900/-and other allowances	(i) Matriculation or equivalent examination of recognized Board or University. (ii) Must have knowledge of Indian Cooking and proficiency in trade.
2.	LDC	01	OBC -01	PB-1 -Rs.5200-20200 with Grade Pay of Rs. 1900/-and other allowances	(i) Std 12 <sup>th</sup> passed or equivalent examination of recognized Board or University. (ii) Must have a speed of 35 words per minute in English Typing or 30 words per minute in Hindi Typing on Computer.
3	Civil Motor Driver Ordinary Grade	01	*01-Gen *Reserved for Ex-serviceman	PB-1 -Rs.5200-20200 with Grade Pay of Rs.1900/-and other allowances	(i) Matriculation or equivalent from recognized Board. (ii) Must possess the civilian driving license for heavy vehicle and have two years experience of driving such vehicles.
4.	Washerman	02	Gen -01 ST -01	PB-1 -Rs.5200-20200 with Grade Pay of Rs. 1800/-and other allowances	(i) <b>Essential</b> : Matriculation or equivalent examination of recognized Board. (ii) <b>Desirable</b> : Must be wash Military/ Civilian clothes thoroughly well.
5.	Gardener (MULTI TASKING STAFF)	01	Gen -01	PB-1 -Rs.5200-20200 with Grade Pay of Rs. 1800/-and other allowances	(i) <b>Essential</b> : Matriculation pass or equivalent from recognized Board. (ii) <b>Desirable</b> : Conversant with the duties of Gardener with one year's experience in the trade.
6.	Messenger (MULTI TASKING STAFF)	01	Gen -01	PB-1 -Rs.5200-20200 with Grade Pay of Rs. 1800/-and other allowances	(i) <b>Essential</b> : Matriculation or equivalent from recognized Board. (ii) <b>Desirable</b> : Conversant with the duties of Messenger with one year's experience in the trade.
7.	Safaiwala (MULTI TASKING STAFF)	01 03 03	OBC -03 Gen- 04	PB-1 -Rs.5200-20200 with Grade Pay of Rs. 1800/-and other allowances	(i) <b>Essential</b> : Matriculation or equivalent from recognized Board. (ii) <b>Desirable</b> : Conversant with the duties of Safaiwala with one year's experience in the trade.
8.	Chowkidar (MULTI TASKING STAFF)	01	Gen- 01	PB-1 -Rs.5200-20200 with Grade Pay of Rs. 1800/-and other allowances	(i) <b>Essential</b> : Matriculation or equivalent from recognized Board. (ii) <b>Desirable</b> : Conversant with the duties of Chowkidar with one year's experience in the trade.
<b>Total</b>		<b>21</b>			

**2. Age Limit :-**

- (a) For General candidates. - 18 years to 25 years
- (b) For OBC candidates - 18 to 28 years.
- (c) For ST candidates - 18 to 30 years
- (d) For Ex-Serviceman (General candidates) - 03 Years relaxation after deduction of the military service rendered from actual age as on the crucial date.
- (e) For Ex-Serviceman(OBC candidates) - 06 Years relaxation (3 Years + 3 Years) after deduction of the military service rendered from actual age as on completion of skill Test.
- (f) Age limit relaxable for Govt servants as under:-  
(i) For the post of Cook, LDC, Civ Motor Dvr - upto 40 years  
(ii) For the post of Washerman, Gardener, Messenger, Safaiwala, Chowkidar. - upto 35 years.

**3. Syllabus written examination for above posts will be as under :-**

- (i) General Intelligence and Reasoning ( 25 Qs, 25 Marks)
- (ii) Numerical Aptitude (25 Qs, 25 Marks)
- (iii) General English. ( 50 Qs, 50 Marks)
- (iv) General Awareness (50 Qs, 50 Marks)

- 4. Written and oral examination will be in Hindi/English language.
- 5. Questions papers will be bi-lingual (Hindi/English).
- 6. Answers will be allowed in Hindi/English language.
- 7. All eligible candidates are requested to forward their applications as per the format given with complete bio-data age/caste proof, education qualification certificates, experience certificates so as to reach Adm Office (Civil Section), HQs MIRC, Darewadi, Solapur Road, Ahmadnagar-414110 (Maharashtra) on or before **30 Mar 2013** alongwith an extra self addressed envelope duly stamped for issuing call letters. If self addressed envelope is not found enclosed, the application shall not be considered. Candidates may apply for one post only. Incomplete applications will be rejected.
- 8. ST/OBC candidates who apply against unreserved post will not be given any concession of reserved category, as they will be considered in the Un-reserved category.
- 9. Date of interview/entrance test will be intimated separately to the eligible candidates only.

Station : Ahmadnagar  
Date: \_\_\_\_\_ Mar 2013  
(Sandeep Malik)  
Lt Col, Col Adm

**Continued from page 8**

- (d) Government Undertaking
  - (e) Universities
  - (f) Others
  - 11. Please state whether you are working in the same Department and are in the feeder grade or feeder to feeder grade.
  - 12. Are you in Revised Scale of pay? If yes, give the date from which the revision took place and also indicate the pre-revised scale.
  - 13. Total emoluments per month now drawn
  - 14. Additional information, if any, which you would like to mention in support of your suitability for the post. (This among other things may provide information with regard to (i) Additional academic qualifications (ii) professional training and (iii) Work experience over and above prescribed in the Vacancy Circular/Advertisement) (**Note**: Enclose a separate sheet, if the space is insufficient).
  - 15. Please state whether you are applying for deputation (ISTC)/Absorption /Re-employment Basis. (Officers under Central/State Government are only eligible for "Absorption". Candidates of non-Government Organization are eligible only for Short Term Contract.)
  - 16. Whether belongs to SC/ST :
  - 17. Remarks (The candidate may indicate information with regard to (i) Research publication and reports and special projects (ii) Awards/Scholarship/Official Appreciation (iii) affiliation with the professional bodies/institutions/societies and (iv) any other information. (**Note**: Enclose a separate sheet, if the space is insufficient).
- I have carefully gone through the vacancy circular/advertisement and I am well aware that the Curriculum Vitae duly supported by documents submitted by me will also be assessed by the Selection Committee at the time of selection for the post.

Date \_\_\_\_\_  
Signature of the Candidate  
Address: \_\_\_\_\_

Countersigned

(Employer with Seal)

davp 45101/11/0020/1213

EN 50/61

## Sainik School Nagrota-Jammu (J&K) Recruitment

Applications are invited from the suitable candidates for the following posts as per the details given against each: -

Sl. No.	Post	Salary	Age	Essential Qualification	Desirable
(a)	Master (Maths) (Regular)-01	Rs.9300-34800 with Grade Pay of Rs.4800/-	Between 21 to 35 yrs	M.Sc with B.Ed in concerned subject from a recognized university	1. Experience in teaching in a reputed English medium school. 2 Proficiency in sports and extra curricular activities.
(b)	Asstt. Master (English) (Regular)-01	Rs.9300-34800 with Grade Pay of Rs.4600/-	Between 21 to 35 yrs	BA with B.Ed in concerned subject from a recognized university	1. Experience in teaching in a reputed English medium school. 2. Proficiency in sports and extra curricular activities.

- 2. **Allowances & Perquisites** - In addition to DA at Central Govt. rates, incumbent is entitled to free accommodation as available/HRA, LTC, PF, New Pension Scheme, gratuity etc and subsidized education for two children.
- 3. Apply on plain paper with a passport size photo, bio-data to include Name, Address, Telephone No. with STD Code, DOB, Status (Gen/SC/ST), Academic Record with percentage up-to highest degree, co-curricular activities and level of participation in games, NCC, Experience certificates with exact date and institutions served. Applications must accompany an Account Payee DD of Rs. 500/- (Non-refundable) drawn in favour of Principal Sainik School Nagrota J&K (Code No. 03938).
- 4. Applications with attested copies of documents along-with self addressed envelope with Rs.22/- stamps affixed must reach Principal Sainik School Nagrota, Jammu (J&K) - 181221 **within 15 days** from the date of publication of this advertisement. School will not be responsible for postal delay. No TA/DA will be paid to short-listed candidates who only will be called for Interview.
- 5. The school administration reserves the right to cancel the vacancy due to administrative/policy reasons.
- 6. Detailed information is also available on the school website - [www.sainikschoolnagrota.com](http://www.sainikschoolnagrota.com)

PRINCIPAL  
EN 50/92

### APPLICATION FORM APPLICATION FOR THE POST OF \_\_\_\_\_

FOR OFFICE USE ONLY

Regn No. \_\_\_\_\_

To:-

The Commandant  
HQ MIRC, Ahmadnagar-414110

PASSPORT  
SIZE  
PHOTOGRAPH

1) Name in full (Capital):-

SURNAME	NAME	FATHER/HUSBAND NAME

2) Date of Birth (Proof should be att)

Date	Months	Years

3. Age as on **30 Mar 2013** \_\_\_\_\_ Yrs \_\_\_\_\_ Month \_\_\_\_\_ Days

4. Permanent Address \_\_\_\_\_

5. Local Address \_\_\_\_\_

6. Caste (CTC of cert issued by \_\_\_\_\_ competent authority to be attached)

7. Educational Qualification (Xerox copy duly attested attached) \_\_\_\_\_

8. Experience if any (Xerox copy duly attested attached) \_\_\_\_\_

9. Name of the post applied \_\_\_\_\_ Reserved for \_\_\_\_\_

10. Have you been convicted in criminal cases. Yes/No

11. Contact No. (Telephone/Mobile No.) \_\_\_\_\_

**DECLARATION**

I, hereby declare that all the statements made in the application are true and correct to the best of my knowledge and belief.

I, understand that in the event of particulars or information given hereby being found false or incorrect my candidature for the examination is liable to be rejected or cancelled and on the event of my mis-statement/discrepancy in the particulars being detected after my appointment, my service is liable to be terminated without notice to me.

Date: \_\_\_\_\_  
Signature of candidate  
EN 50/97



**Government of India  
DEPARTMENT OF ATOMIC ENERGY  
Atomic Minerals Directorate for Exploration & Research**

**Advertisement No. AMD-1/2013**

**Last date for receipt of Applications: 22-04-2013**  
Applications are invited from eligible candidates for appointment to the following posts in Atomic Minerals Directorate for Exploration & Research (AMD), Department of Atomic Energy:

<b>1. Name of the Post</b>	<b>Assistant Security Officer – A (MALE)</b>
Pay Band	PB-2 ₹9300 – 34800 with GP ₹4200/- plus other allowances as admissible.
Total No. of posts	<b>10 (Gen - 06 ; OBC - 03 ; SC - 01)</b>
Minimum Qualifications & Experience	Direct Recruits : Graduate from a recognized University. For Ex-servicemen, : Graduate from a recognized University Ex-Police and Ex-Central Para Military Personnel or equivalent.
Experience	For Ex-servicemen: Not below Junior Commissioned Officer or equivalent or having five (05) years experience as Non-Commissioned Officer or equivalent.
Physical Standards	No deformity
Minimum Height	167 Cms
Chest	80-85 Cms

The screened in candidates for the above post will have to qualify in the physical endurance test conducted by the duly constituted Board as follows:

**(a) Physical events:**

(i) 1.6 Kms run - in 06 minutes 30 seconds  
(ii) Long Jump - 3.65 meters in 3 chances  
(iii)

	Age Group	Nos.
Chin Ups	Upto 30 years	08-09
	30-40 years	05-06
Push Ups	40 - 45 years	16-17
	Above 45 years	12-13
Sit Ups	Upto 30 years	25-29
	30-40 years	20-24
	40 - 45 years	15-19
	Above 45 years	10-14

**(b)** The candidates who qualify the above physical endurance test will only be allowed to appear a written test for 75 marks in the allotted time of 90 minutes. Composition of the question paper will be as per the following pattern:

- (i) Comprehension :25 marks  
(ii) Report writing :25 marks  
(iii) Analytical :25 marks  
(Basic Maths, General Awareness, Objective type)  
(iv) Personal Interview :25 marks

**NOTE :** Candidates having NCC 'C' certificate & State Level Sports Certificate will be preferred.

<b>Nature of Duties</b>	Deploying Security Staff, regulating entry/exit of authorised personnel / vehicles / materials, attending to untoward incidents like trespassing, theft, fire, accident etc., taking security rounds, conducting enquiries, recording statements, collecting intelligence, rendering assistance to employees in case of emergency, supervising packing of materials, clearing gate pass, enforcement of security rules/procedure, operating gadgets, drawing panchanamas, making written reports of unusual happenings and liaising with police. The candidates so recruited are required to perform round the clock shift duties.
<b>Age</b>	Minimum 18 years and Maximum 27 years as on 01.01.2013. Maximum age limit for Ex-servicemen and persons with police and paramilitary backgrounds is 30 years (after deducting the period of service from the actual age) Relaxable for Government Servants upto 35 years' in accordance with the instructions/orders issued by the Central Government. Ex-servicemen and Ex-constables shall be eligible to apply only within three years of discharge of retirement from Armed Forces or Police.

<b>2. Name of the Post</b>	<b>SECURITY GUARD (MALE)</b>
Pay Band	PB-1 ₹5200 – 20200 with GP ₹1800/- plus other allowances as admissible.
Total number of posts	60 (General-30; OBC-25; SC-05) Out of 60 posts 06 of posts are reserved for Ex. Servicemen of any category.
Educational Qualifications	Direct Recruits : 10 <sup>th</sup> standard pass For Ex-servicemen, : 10 <sup>th</sup> standard pass or Ex-Police and Ex-Central Para Military Personnel equivalent certificate from Armed Forces.
Physical Standards	No deformity Minimum Height: 167 Cms. Chest: 80-85 Cms.
Age	<b>Minimum 18 years and maximum 27 years as on 01.01.2013.</b> Ex-servicemen and Ex-constables shall be eligible to apply only within three years of discharge of retirement from Armed Forces or the Police

The screened in candidates for the post of Security Guard will have to qualify in the physical endurance test conducted by the duly constituted Board as follows:

- (a) Physical Test Events:**  
(i) 100 Metres Run - in 16 Seconds

(ii) Long Jump - 3.65 meters in 3 chances  
(iii)

	Age Group	Nos.
Chin Ups	Upto 30 years	08-09
	30-40 years	05-06
Push Ups	40 - 45 years	16-17
	Above 45 years	12-13
Sit Ups	Upto 30 years	25-29
	30-40 years	20-24
	40 - 45 years	15-19
	Above 45 years	10-14

**(b)** The candidates who qualify the physical endurance test alone will be allowed to appear a written test for 75 marks in the allotted time of 90 minutes. Composition of the question paper will be as per the following pattern:

- (i) Comprehension :25 marks  
(ii) General Awareness (Objective type) :25 marks  
(iii) Analytical or Basic Maths (Objective type) :25 marks  
**(c) Personal Interview :25 marks**

<b>3. Name of the Post</b>	<b>WORK ASSISTANT – A (MALE &amp; FEMALE)</b> (Laboratories / Work Shops / Plant / Cosmetic Maintenance / Field Posting)
Pay Band	PB-1 ₹5200 – 20200 with GP ₹1800/- plus other allowances as admissible.
Total Number of posts	100 (Gen – 51; OBC – 30; SC – 19) {10 posts are for ex-servicemen} Out of the above 100 posts, 12 posts are reserved for PWD of any category (VH-04; HH-04; OH-04)
Educational Qualifications	10th (Tenth) Class Pass
Age	Minimum 18 years and Maximum 27 years as on 01.01.2013
Mode of Recruitment	The screened in candidates will have to qualify in the Written Examination followed by Personal Interview.

**NATURE OF DUTIES OF WORK ASSISTANT - A:**

- 1) Cosmetic maintenance of laboratories, office buildings and surrounding areas including toilets, providing clean, neat, and hygienic ambience in the area and miscellaneous office work. Cleaning and decontamination of plants/machinery, assistance in plants / workshops / stores and other utility areas. The duties may also involve working in round the clock shifts.
- 2) Duties include developing the gardens by digging soil and planting of different plants, maintenance of gardens by sweeping, watering, weeding, mowing, manuring, pruning and propagating plants and flower arrangements.
- 3) Agricultural operations including ploughing, harvesting, seed sorting/packing, pesticides and fertilizer treatment, bird watch, etc.
- 4) Miscellaneous office work which include movement of files, papers & other waste materials photocopying work etc.
- 5) Rendering assistance to personnel in Survey, exploration & Drilling activities.

**RELAXATION IN UPPER AGE:** (for all category of posts)

- Relaxation up to 5 years against reserved posts for SC and 3years for OBC candidates
- Relaxation for Ex-Servicemen will be provided as per rules.
- Departmental candidates with 3 years continuous service - up to 40 years of age (45 years in case of SC/ST).
- (applicable for Security Guards & Work Assistant posts only)
- Relaxation up to 10 years (15 years in case of SC/ST) for Blind, Deaf-mute and Orthopedically handicapped persons.
- Relaxation in the upper age limit of 5 years shall be admissible to persons who had ordinarily been domiciled in Kashmir division of the state of Jammu & Kashmir during the period from 1.1.1980 to 31.12.1989 provided that the relaxation in the upper age limit for appearing at any examination shall be subject to the maximum number of chances permissible under the relevant rules. Any person intending to avail of this relaxation of age limit shall submit a certificate from (a) the district magistrate the Kashmir division within whose jurisdiction he had ordinarily resided; or (b) any other authority designated in this behalf by the Government of J & K during the period from 1.1.1980 to 31.12.1989.
- Relaxation in the upper age limit of 5 years shall be admissible to children / Family members of those who died in the 1984 Riots. Proof of the effect that they have been affected by 1984 Riots should be furnished.

**NOTE: Age relaxation will be admissible only for the posts which fall in the Reserved Category.**

A written examination would be conducted for selection of candidates against all the three category of posts.

The date, time and venue for written examination will be intimated to the eligible candidates. After qualifying the written examination, they have to appear for personal interview.

**AMD reserves the right to increase/decrease the number of post or cancel the advertisement depending upon the requirement/policy of the Department/Government.** Mere fulfilling the requirement as laid down in the advertisement does not entitle a candidate to be called for a written examination/interview. AMD reserves the right to restrict the number of candidates to a reasonable limit on the basis of scholastic records, percentage of marks in the qualifying examination where the number of applications received in response to the advertisement are large in number and where it is not practicable for this Directorate to call all the candidates for written examination/interview.

**APPOINTMENT & PLACEMENT:**

Atomic Minerals Directorate for Exploration & Research (AMD) is basically a field oriented organization. The candidates are liable to be posted for field and or laboratory work in any one of the Regions with Headquarters at New Delhi, Bengaluru, Nagpur, Jamshedpur, Shillong, Jaipur and Hyderabad or in its sectional offices located at Visakhapatnam & Thiruvananthapuram or any of the field units located anywhere in India or any other Centre to be established by the AMD in future or in any of the Constituent Units of the Department of Atomic Energy in India. They should be prepared and must be willing to bear the arduous conditions of field life, which involve living in tents or in improvised field accommodation. They should be physically and mentally strong enough to withstand all the rigors and hazards of field life.

**TRAVELLING ALLOWANCE:**

Only unemployed SC/ST candidates called for written test/interview from outstation will be eligible for reimbursement of journey expenses limited to single SECOND CLASS (General) railway fare each from the place of normal residence to place of examination & back by the shortest route as per rules subject to production of un-employment certificate from MP/MLA/Gazetted Government Officer. If concessional tickets are available, reimbursement will be limited to the concessional fare only.

**WEBSITE:** The Advertisement, application proforma & format of OBC certificate are available on AMD website at [www.amd.gov.in](http://www.amd.gov.in). The status of recruitment against the above advertisement such as applications screened-in for written examination/interview/ selected list will be made available on AMD website from time to time.

**HOW TO APPLY:**

1. The application should be submitted in the proforma given in the Advertisement, preferably typewritten on thick A4 size/foolscap paper.
2. The application and the outer cover should be superscribed as Application for the post of \_\_\_\_\_ in AMD, against the advertisement AMD-1/2013.
3. Separate application should be submitted for each post, if a candidate wishes to apply for more than one post.
4. The candidates name, address with pincode, date of birth should be written legibly in English in Bold Capital Letter even if a candidate fills the application form in Hindi.
5. Photograph: A recent passport size photograph should be affixed on the space provided on the right hand top corner of the application and an additional photograph (with name on backside) sent along with the application.
6. Copies of Certificates: Candidates should submit along with their application, attested copies of following certificates :  
(a) Educational/technical qualifications (supported by appropriate marks sheets indicating the subjects offered at the examination).  
(b) Date of Birth  
(c) Caste Certificates in the prescribed proforma issued by the Competent Authority regarding the claim that the candidates belongs to SC/ST/OBC.  
(d) Non-creamy layer & validity certificate issued within one year in respect of OBC candidate.  
(e) Discharge certificate from Defence (applies to ex-defence personnel only).  
(f) No-objection certificate (applies to persons working in Central/State government/public sector undertakings).  
(g) Certificate from Appropriate Authority regarding physical disability (applicable to physically disabled persons only).  
(h) Proof if affected by 1984 Riots.  
(i) Certificate regarding domiciled in Kashmir Division from 01.01.1980 to 31.12.1989 (if claiming age relaxation for Kashmir Division).

**IMPORTANT REQUIREMENT OF DISABILITY CERTIFICATE**

1. According to the Persons with Disabilities (Equal Opportunities, Protection of Rights and full participation) Rules, 1996 notified on 31.12.1996 by the Central Government in exercise of the powers conferred by sub section (1) and (2) of Section 73 of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 (I of 1996), a disability certificate shall be issued by a Medical Board duly constituted by the Central or a State Government. The Central/State Government may constitute a Medical Board consisting of at least three members, out of which, one member shall be Specialist from the relevant field.
2. The Certificate would be valid for a period of 5 years for those whose disability is temporary. The Medical Board shall indicate the period of validity of the certificate where there are chances of variation in the degree of disability. For those who acquired permanent disability, the validity can be shown as Permanent. On representation by the applicant, the Medical Board may review its decision having regard to all the facts and circumstances of the case and pass such orders in the matter as it thinks fit.
3. Those SC/ST/OBC/persons with disabilities selected on their own merit without relaxed standards along with other candidates will be considered against unreserved vacancies provided the post is identified for persons with disability of relevant category.  
.Completed applications should be sent to :

**Assistant Personnel Officer (R)**  
**Atomic Minerals Directorate for Exploration & Research (AMD),**  
**1-10-153/156, AMD Complex, Begumpet,**  
**Hyderabad – 500 016, Andhra Pradesh.**

**GENERAL INSTRUCTIONS:**

1. The candidates applying against the reserved vacancy for physically challenged persons should have at least a minimum of forty percent disability (moderate) and certified by the appropriate medical authority.
2. Persons who are applying for more than one post should submit separate applications for each category.
3. Persons working under Central/State Government/Public Sector undertakings should submit their applications through proper channel. They may however, send one advance copy of the application along with required enclosures before the prescribed last date.
4. Applications which are not in conformity with the requirements indicated in the advertisement will be rejected. E.g. applications which are not in the prescribed format, not accompanied by the attested copies of all the Marks memos, pass certificates, date of birth certificate, photographs, caste certificates, non-creamy layer in case of OBC, PH Certificate, proof of residence in the case of J & K domiciled candidates etc.
5. Candidates selected against this advertisement are likely to be posted in any of the Regional Headquarters/Field units of this Directorate and also liable to serve in any constituent units of the Department of Atomic Energy.
6. The number of vacancies shown above is provisional and liable to vary. In case the vacancy position for any category is reduced or even made nil, AMD is not liable to compensate the applicant for consequential damage/loss.
7. The Candidates belonging to SC/ST/OBC should clearly indicate the same in the application (even when applying for Unreserved vacancy) and should attach proof of the same in the specified format, failing which they will be treated as unreserved and subsequent representations for change of community status will not be entertained. In case of OBC, the certificate should specially indicate that the candidate does not belong to the persons/sections (creamy layer) mentioned in Col.3 of the Schedule of the Government of India, DOPT OM No.36033/3/2004-Estt(Res.) dated 14.10.2008.

**Office of the Cantonment Board, Lansdowne Pauri Garhwal (Uttarakhand) Employment Notice**

Lansdowne Cantonment Board invites application from eligible candidates for the post of Permanent post of Sanitary Inspector on **30-03-2013:-**

**1. Sanitary Inspector (Permanent Post) - 01 (Gen.)**

● Requisite qualifications-Inter Science with Cert/Dip in Pub Hyg awarded by the provisional Hygiene Institute, Govt. of Uttar Pradesh, Lucknow, the certificate awarded by the All India Institute of Local Self Govt. Bombay, and the National Council of Rural Education, Delhi.

● Age Limit - Min. 18 to Max. 25 years as on **31-01-2013**.

● Pay scale P.B.+G. P. Rs. 9300-34800 +4200 (Pre-revised 5000-150-8000).

● Applications are invited for the above post should be received to this office on or before **30-03-2013**. The applications will be submitted by the applicant with 02 passport size photographs attested Xerox copies of educational qualifications and experience 01 self address envelope with Rs. 5/- postal stamps. The applicant should clearly mentioned on the top of the envelope "application for the post of "SANITARY INSPECTOR".

● Incomplete /late received application will not be entertained.

● No TA/DA shall be paid for appearing in test /interview.

The Board/undersigned reserves the rights to accept or reject any application or all offers without assigning any reasons thereof. Tele 01386-262214

**Office of the Cantonment Board Lansdowne, Pauri Gharwal-246155 Uttarakhand.**

**CHIEF EXECUTIVE OFFICER CANTT BOARD LANSDOWNE EN 50/99**

**Navodaya Vidyalaya Samiti**

The Navodaya Vidyalaya Samiti, an autonomous organization under the Ministry of Human Resource Development (Department of School Education & Literacy) invites application for filling up the posts of Executive Engineer in the scale of pay in PB-3, Rs.15,600-39,100/- with grade pay of Rs.6600/- on deputation basis at Navodaya Vidyalaya Samiti, Hqrs. and its Regional Offices located at Chandigarh, Jaipur, Bhopal, Lucknow, Hyderabad, Pune, Patna and Shillong.

Essential qualifications required for appointment to the post of Executive Engineer is as under-

- i) At least a Graduate degree in Civil Engineering from a recognized University with at least 50% marks.
- ii) Persons serving in Government departments/ organizations as:
  - a) Executive Engineer (Civil) with experience in Civil works.

**OR**

b) Assistant Engineer (Civil) with 5 years experience in Civil works.

**UPPER AGE LIMIT:** Upto 55 years

**Terms and Conditions**

1. The period of deputation would be initially for a period of three years, which may be extended further at the discretion of the Competent Authority.
2. The officers selected will have the option to draw either his grade pay plus Deputation (Duty) Allowance or his pay fixed in the scale of post as per existing Govt. of India instructions.
3. The Navodaya Vidyalaya Samiti, being an autonomous body, the employees are neither eligible for allotment nor retention of general pool accommodation.

The application, in the given proforma giving complete details with recent photograph may be sent through **proper channel to the Deputy Commissioner (Admn.), Navodaya Vidyalaya Samiti, B-15, Institutional Area, Sector-62, NOIDA (UP)-201309 within 21 days from the date of publication of this notification.** While forwarding the applications, it may be certified by the sponsoring authority that the particulars furnished by the officer are correct and that no vigilance or disciplinary case is pending or contemplated against the officer concerned along with the gist of ACR for preceding five years i.e. upto 2011-12.

**APPLICATION FOR THE POST OF EXECUTIVE ENGINEER ON DEPUTATION BASIS**

1. Name of the applicant .....
2. Father / Husband Name .....
3. Category (General/SC/ST/OBC) .....
4. Date of Birth .....
5. Age as on 31.01.2013 .....
6. Present post & date of appointment in the present Grade .....
7. (i) Present Band Pay .....
- (ii) Pay Band .....
- (iii) Grade Pay .....
8. Preference for place of posting .....
9. Address for :-
  - (i) Correspondence .....
  - (ii) Organization/ Relieving Authority where presently working .....
  - (iii) Contact Nos.:
    - Phone (O) ..... (M)..... FAX No.....
10. Educational Qualification (in chronological order from Senior Secondary [class -XII] onwards: .....

**Affix your latest passport size photograph duly attested by a Gazetted Officer**

S. No.	Examination passed	Years of passing	Board / University	Subjects taken	% of marks obtained (upto 2 decimal points)

S. No.	Post held	Organization	Post held From	Post held To	Pay Scale with break up	Nature of duties

**DECLARATION**

I solemnly declare the statements and details given above in the application form are correct to the best of my knowledge and belief, in case any of the details in the application form are found false at a later stage, my candidature/appointment may be cancelled/withdrawn. I am fully aware that the appointment in the Samiti bears an All India Transfer Liability and I am likely to be posted anywhere in India.

**(Signature of the Candidate)**

Date: \_\_\_\_\_  
Place: \_\_\_\_\_

**(FOR USE OF FORWARDING OFFICE)**

It is certified that the details provided by the applicant as above are correct as per the records. No Vigilance/Disciplinary case, is pending/contemplated against Shri/Smt./Ms. .... If selected, the individual will be relieved immediately. The copies of ACRs of Shri/Smt./Ms. .... for the last 05 years are enclosed.

**(Signature of the forwarding officer)**

Name .....  
Designation .....  
Seal of the Office .....

**EN 50/64**

**EMPLOYEES' STATE INSURANCE CORPORATION  
DIRECTORATE (MEDICAL) DELHI  
ESI SCHEME: DISPENSARY COMPLEX  
TILAK VIHAR (TILAK NAGAR), NEW DELHI-110018**

**Corrigendum**

With reference to notice published on 23.2.2013 in newspapers Hindustan Times, Navbharat Times and Dainik Jagran and accordingly result notified on ESIC website for 24 para-medical posts (except librarian grade-II), the result of shortlisted candidates for the post of Resp. Lab. Technician and Dialysis Technician may be treated as withheld in addition to already withheld result of Librarian Grade-II, till further orders.

**EN 50/88** **DIRECTOR (MEDICAL) DELHI**

Continued from page 10

8. The selected candidates will be governed by the new restructured defined Contribution Pension Scheme, which has come into force with effect from 1.1.2004 vide Notification No.5/7/2003-ECB&PR dated 22.12.2003 of Ministry of Finance.

9. Mere fulfillment of requirements as laid down in the advertisement does not entitle candidates to be called for written examination/interview. In case the response is more, the screening will be restricted to those with higher percentage of marks & experience wherever prescribed by the competent authority in AMD followed by a written examination / personal interview. No correspondence in this regard will be entertained.

10. Candidates possessing qualifications higher than prescribed may not be considered on the grounds of over qualification.

11. Application which is illegible, incomplete, unsigned, not in prescribed format, without photo of candidate, not having attested photo copy of certificates is liable to be rejected.

12. If the post applied for is not indicated on the top of the envelope and the application, the same will not be entertained.

**WARNING:**  
Applications which are not in conformity with the requirements indicated and which are not in the prescribed form or are not accompanied by the attested copies of certificates and photograph will be rejected. Mere fulfilling of requirement as laid down in the advertisement does not qualify a candidate for employment. AMD reserves the right to fill up all the posts or alter the number of posts or even cancel the whole process of recruitment and change the centre of examination without any notice.

**CANVASSING IN ANY FORM WILL BE A DISQUALIFICATION.**  
**Government of India  
Department of Atomic Energy  
Atomic Minerals Directorate for Exploration & Research  
Begumpet, Hyderabad – 500 016.**

**ADVERTISEMENT NO.: AMD-1/2013**

Application for the post of \_\_\_\_\_

(For office use only)			Affix Latest Passport Size Photo
Application No.	Examination Centre	Roll No.	

1. Full Name ( BLOCK LETTERS) (As per SSC Certificate)	
2. Father/Husband/Guardian's Name	
3. Date of Birth (in Christian Era)	
4. Age as on 1-1-2013	
5. Sex	Male / Female
6. Marital Status	MARRIED / SINGLE / WIDOWER / WIDOW
7. Religion	
8. Whether the applicant belongs to GENERAL/SC/ST/OBC. If belongs to SC/ST/OBC please state the name of Caste	
9. Present complete Postal Address in BLOCK LETTERS with State, Pin Code, Telephone No. with STD code etc.	

10. Permanent Postal Address in BLOCK LETTERS with State, Pin Code, Telephone No. with STD code etc.	
11. Nationality	
12. Whether applying against Physically Handicapped? (OH / HH / VH) If YES, indicate the percentage and type of disability and enclose relevant certificate.	Yes / No
13. Whether Ex-Serviceman?	YES / NO (If YES enclose relevant certificate)
14. Are you domiciled in Jammu & Kashmir during the period from 1-1-1980 to 31-12-1989?	YES / NO (If YES enclose relevant certificate)
15. Are you a family member of those who died in 1984 Riots?	YES / NO (If YES enclose relevant certificate)
16. Are you under any contractual obligation to serve the Central / State Government /any other Public Sector Undertaking? If so, please furnish full details.	

17. Details of relatives, if any employed in the DAE or its Constituent Units and Relationship

Name of Relative	Relationship	Unit in which employed	Post Held

18. Educational/Technical Qualifications beginning with SSC:

Examination Passed	Subjects	Board / University	Year of Passing	Percentage Of marks	Class Obtained

19. Experience particulars of previous and present employment are to be furnished

Post held	Period		Name of employer with full address	Nature of duties / work	Reasons for leaving
	From	To			

20. Are you in receipt of any Pension, gratuity or employer's share of contribution of Provident Fund from the Central / State Govt. or any Public Sector undertaking? If so, please give particulars thereof.

21. Full postal address of a District level **Government** Hospital nearest to your Place of residence.

**DECLARATION**

1. I hereby declare that the above information is factually correct to the best of my knowledge and belief.
2. I am aware that my application is liable to be rejected if the information given is incomplete or found to be incorrect.
3. I understand that in the event of any information being found false or incorrect at any stage or not satisfying the eligibility conditions according to the requirements mentioned in the advertisement, my candidature / appointment is liable to be cancelled/terminated.
4. I undertake to abide by all the conditions specified in the advertisement.

Place: \_\_\_\_\_  
Date: \_\_\_\_\_ Signature of the Candidate

**Check list for candidates (put a tick ( √ ) in the applicable box)**

1. Application duly completed and signed.	
2. Photograph affixed and one extra photo attached	
3. Date of Birth certificate	
4. Caste Certificate	
5. Attested Xerox copies of educational/technical qualification certificates	
6. Experience Certificate if any,	
7. No objection certificate from employer(in case of in-service personnel)	
8. Residential proof certificate	
9. Discharge Certificate from Defence Services (if applicable)	
10. Disability Certificate issued by Medical Board	

**EN 50/54**

Signature of the Candidate

**Government of India  
Department of Atomic Energy  
Raja Ramanna Centre for Advanced Technology**

PO: CAT Indore-452013

**Special Drive for Recruitment of ST Candidates Only**

Advertisement No : RRCAT- 03/2013

Last date for receipt of application 15.04.2013

Applications are invited for Stipendiary Trainees (Category-II) for training in Raja Ramanna Centre for Advanced Technology, Indore.

**Total No. of Posts: (ST- 16)**

Post Code	Trade	No. of posts	Educational Qualification
II-1	Electronics/ Instrumentation	5	<b>Minimum 60% marks in SSC or HSC with Science &amp; Mathematics PLUS ITI / NCVT certificate in Instrumentation/Electronics/ Fitter/ Electrical.</b> The ITI/NCVT qualification should be either of the following two: 1. ITI/NCVT put together of not less than 2 years OR 2. ITI of one year duration Plus one year relevant experience after completion of the course.
II-2	Fitter	8	
II-3	Electrical	3	

**Note :**  
1. Those candidates who have passed B.Sc./ Diploma in Engineering/ AMIE/Degree in Engineering/equivalent or are appearing for B.Sc./Diploma in Engineering/ AMIE/Degree in Engineering/equivalent (final year) will not be considered and hence need not apply.  
2. ITI certificate should be from Government recognized institution.

**Age Limit:**  
1. 18 years (minimum) and 22 years (maximum) as on 15.04.2013 (The person applying should not be born before 16.04.1991 and not after 16.04.1995)  
The upper age prescribed above is relaxable up to a maximum of 5 years.

**In addition to the above, the following age relaxation is also applicable:**  
a) Relaxation of the upper age limit of five years shall be admissible to children/family members of those who died in the 1984 riots. Proof to the effect that they have been affected by 1984 riots should be furnished.

b) For persons with disabilities: Up to a maximum of fifteen years.  
c) Relaxation in the upper age limit of 5 years shall be admissible to all persons who had ordinarily been domiciled in Kashmir division of the state of Jammu & Kashmir during the period from 1st day of January 1980 to 31st day of December, 1989 provided that the relaxation in the upper age limit for appearing at any examination shall be subject to the maximum number of chances permissible under the relevant rules.

**Certificate regarding proof of residence -**  
Any person intending to avail of this relaxation of age limit admissible under Rule 3 of Central Civil Services and Civil Posts (Upper Age Limit for Direct Recruitment) Rules, 1998, shall submit a certificate from:

- a) the District Magistrate in the Kashmir division within whose jurisdiction he had ordinarily resided;
- or
- (b) any other authority designated in this behalf by the government of Jammu & Kashmir to the effect that he had ordinarily been domiciled in the Kashmir division of the state of Jammu & Kashmir during the period from the 1st day of January, 1980 to the 31st day of December, 1989

2 (a). Total duration of Training : Two years  
(b). Stipend during Training :  
Rs.6,200/- per month for 1st year  
Rs.7,200/- per month for 2nd year

In addition to above, trainees will be entitled for a one time book allowance of Rs.1,500/- for purchase of approved books pertaining to their training course.

2 (c). Accommodation:  
Sharing accommodation will be provided by RRCAT to the trainees in RRCAT Colony on payment of prescribed license fee as approved by the Department, subject to availability of accommodation.

3. Before applying, the candidate should ensure that he/she fulfills all the eligibility conditions mentioned in advertisement. The candidate would be admitted to various stages of the recruitment process based on the information furnished by the candidate in his/her application. Only a summary scrutiny of the application would be made before the final stage of the recruitment process and detailed scrutiny of the eligibility of the candidate would be done only at the final stage of the recruitment process. As such, the candidature of the applicant shall remain provisional till detailed scrutiny is undertaken and the candidate is found eligible in all respect. RRCAT would be at liberty to reject any application at any stage of the recruitment process if the candidate is found ineligible for the post. The decision of RRCAT shall be final in deciding the eligibility of the candidate. The mere fact that a call letter has been issued to the candidate and allowed to appear in a written test/interview will not imply that his/her candidature has been finally cleared or that entries made by the candidate in his/her application have been accepted as true and correct.

4. **Written Examination:**  
Written examination of one-hour duration will be conducted and will comprise of objective type questions. Candidates should come prepared to stay in Indore for the written test/interview for minimum two days. No accommodation will be provided for these two days to the candidates coming for written examination and interview. The syllabus for the said examination will be based on subjects at SSC/HSC/ITI level. Those candidates qualifying in the written examination shall be short-listed for interview on the same or following day. Final selection and ranking will be on the basis of the performance of the candidates in interview. No weightage will be given for marks scored in the written examination. The decision of this Centre in this regard will be final.

5. **Scope of Training :**  
Selected candidates will be given training in the Centre in various aspects of relevant trades, as per prescribed syllabi of each trade and for meeting the stringent requirements of this Centre. The candidates will not have choice/option for any particular training programme/training place.

The candidates may be required to work in round-the-clock shifts, including night shift, during the period of training.

6. **Grade after successful completion of Training :**  
Upon successful completion of training, the trainees will be considered for absorption in one of the following grades depending on their performance during the period of training and interview to be held at the end of the training. Based on the performance during training, additional increments may be given on absorption.

Pay scale and total Emoluments at the existing rates is as under:

Post	Pay Band	Grade Pay	Initial Pay in Pay Band	Total emoluments (approx.)
Technician/C	Rs.5,200- 20,200 PB-1	Rs.2,400/-	Rs.7,510/-	Rs. 19700/-
Technician/B	Rs.5,200-20,200 PB-1	Rs.2,000/-	Rs.6,460/-	Rs.16930/-

7. **Execution of Bond:**  
Selected candidates will have to execute a bond to complete the training and serve RRCAT, Indore or any of the Constituent Units of Department of Atomic Energy (DAE), if offered appointment after the training, for a period of 3 years after such appointment. A trainee who fails to complete the training or serve the Government for 3 years, if offered appointment, will

be liable to pay to the Government a sum equivalent to entire aggregate amount of stipend received by him/her during the period of training along with interest thereon as per Government Rules.

8. **How to apply:**  
(i) Application should be submitted in the proforma given herewith. Candidates, who wish to apply on-line, may kindly see the website <http://www.rrcat.gov.in>. Submission of on-line applications will close one week prior to the last date for receipt of application.

Candidates applying on-line must send signed copy of application (produced using the on-line software) along with copies of relevant certificates to the address mentioned. This hard copy of application must reach on or before last date for receipt of application.

- (ii) Application should preferably be typewritten on A4 size paper.
- (iii) The application and the outer cover should be superscribed as "Application for the Post Code \_\_\_ of Category II against Advertisement No. RRCAT-3/2013".
- (iv) Only one application should be submitted for one post. If a candidate wishes to apply for more than one post, separate application should be submitted for each post.
- (v) Candidates are advised in their own interest to send the application by Speed Post/ Registered Post.
- (vi) One extra photograph to be sent with the application.

**9. COPIES OF CERTIFICATES**

- Candidates should submit along with their application attested SINGLE COPY of:
- a) Certificates pertaining to educational qualifications/experience and technical/professional qualifications (supported by appropriate marksheets indicating the subjects offered at the examinations).
  - b) Certificate of date of birth (Class 10th or 12th marksheet or certificate).
  - c) The candidates should submit ST caste certificates in the prescribed proforma applicable to Central Government Employment.
  - d) Disability certificate from the appropriate authority regarding physical disability (applicable to persons with disability).

**10. IMPORTANT REQUIREMENT OF DISABILITY CERTIFICATE**

- i) According to the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Rules, 1996 notified on 31/12/1996 by the Central Government in exercise of the powers conferred by sub-section (1) and (2) of Section 73 of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 (1 of 1996), a disability certificate shall be issued by a Medical Board duly constituted by the Central or a State Government. The Central/State Government may constitute a Medical Board consisting of at least three members, out of which, at least, one member shall be a specialist from the relevant field.
- ii) The certificate would be valid for a period of 5 years for those whose disability is temporary. The Medical Board shall indicate the period of validity of the certificate where there are chances of variation in the degree of disability. For those who acquired permanent disability, the validity can be shown as Permanent. On representation by the applicant, the Medical Board may review its decision having regard to all the facts and circumstances of the case and pass such orders in the matter as it thinks fit.

**NOTE:**

- a) The candidates called for written test/interview will be paid Travelling Allowance as per rules. However, Travelling Allowance is not admissible to those ST candidates who are already in service in Central/State Government services, Central/State Government Corporation, Public Sector Undertakings, Local Government Institutions and Panchayats.
- b) Candidates selected against this advertisement will be trained at RRCAT, Indore. Upon successful completion of training, they are likely to be posted at RRCAT, Indore but are liable to serve in any part of India and in any constituent unit of the Department of Atomic Energy.
- c) The vacancies shown above are provisional and subject to variation. The filling up of vacancies indicated in the advertisement is also subject to the approval of Competent Authority and may not be filled up if decided otherwise in terms of the orders issued by Government from time to time.
- d) The nature of duties to be performed by the above categories of employees will involve working in round-the-clock shift duties (including night shift), in operational plants and areas.
- e) Persons who are appointed against the above posts, will be covered under the New Contributory Pension Scheme as notified by the Government of India, Ministry of Finance, Department of Expenditure vide Notification No. F.No.S/7/2003-ECB & PR dated 22.12.2003.
- f) Persons working under the Central/State Govt/Public Sector Undertakings should submit their applications through proper channel. They may, however, send an advance copy of the application along with enclosures as detailed above to the address given below. They may also bring "No Objection Certificate" from their employer at the time of interview.
- g) Completed applications duly signed by the candidate should be sent to the following address

**Administrative Officer - III  
RAJA RAMANNA CENTRE FOR ADVANCED TECHNOLOGY  
DEPARTMENT OF ATOMIC ENERGY, PO : CAT, INDORE - 452 013**

h) **The last date for receipt of application is 15.04.2013**  
**Important Note :**  
Application which are not in conformity with the requirements indicated in the advertisement, eg. application which are not in the prescribed form, not accompanied by the attested xerox/photo copies of certificates, passport size self attested photograph (2 Nos.) etc. are liable to be rejected. Mere fulfilling of requirements by itself as laid down in the advertisement does not qualify a candidate for interview. Where the number of application received in response to the advertisement is large, and where it is not practicable for the Centre to interview all the candidates, the Centre may restrict the number of candidates for the interview to a reasonable limit on the basis of percentage of marks and longer experience. No correspondence will be entertained in this regard

**'GOVERNMENT STRIVES TO HAVE A WORKFORCE WHICH REFLECTS GENDER BALANCE AND WOMEN CANDIDATES ARE ENCOURAGED TO APPLY'**  
**WARNING : CANVASSING IN ANY FORM SHALL BE A DISQUALIFICATION**  
**RAJA RAMANNA CENTRE FOR ADVANCED TECHNOLOGY, INDORE**  
**APPLICATION FORM**

For office use only  
Application No. \_\_\_\_\_

**Special Drive for Recruitment of ST Candidates only**  
**LAST DATE OF RECEIPT OF APPLICATION : 15.04.2013**  
**Put 'X' in the appropriate box**

1. Advertisement No.	:	RRCAT - 03/2013
2. Post Code for the post applied	:	_____
3. Application for ST CAT-II: (Name of the Trade)	:	_____
4. Name (In block Letters)	:	_____

Affix Passport size Photograph duly signed by candidate

5. Address

Address for correspondence with pin code		Permanent Address with pin code	
Pin Code:		Pin Code :	
Phone No.:			
Mobile No.			
E-mail ID :			

6. Date of Birth ( As per SSC Certificate) :

7. Nationality :

8. Marital status :  Married  Unmarried

9. Religion :

10. Whether belongs to Minority Community [Muslim/Christian/Sikh/any other (Please specify)] :

11. Belongs to :  ST

Please specify Sub Caste :

12. Were you domiciled in Kashmir Division of the State of Jammu & Kashmir during the period from 01.01.1980 to 31.12.1989 ? If yes, please attach the relevant documents :  Yes  No

13. Are you a family member of those who died in 1984 riots? If yes, please attach the relevant documents :  Yes  No

14. Are you a Central Govt. Civilian employee. If yes, please attach necessary certificates :  Yes  No

15. Educational and professional qualifications (Beginning with SSC onwards) :

Examination	University/Board/Institution	Year of passing/appearing	Specialization Subject	Details of Marks		
				Max. Marks	Marks obtained	Percentage of Marks
10th/SSC						
12th/HSC						
ITI/NCVT						

16. Indicate the course of study, if any, the applicant is continuing presently.

Course of study	University/Board/Institution	Full time/Part time	Duration of the course	No. of semester/subjects completed	Marks obtained

17. Experience, if any (particulars of all previous and present employment are to be furnished)

Name & address of employer	Post held	Whether Central or a State Govt./PSUs/Autonomous bodies	Period		Permanent or Temporary	Reasons for leaving
			From	To		
<b>Total experience</b>			<b>Year</b>	<b>Month</b>		

18. Have you applied for any other post against this advertisement, if so, please indicate

Post Code	Trade

19. Details of relatives employed in DAE or its constituent units.

S.No.	Name	Relationship	Unit	Post

20. Are you in receipt of any scholarship from the Department of Atomic Energy? If so, please furnish particulars.

21. Are you under any contractual obligation to serve the Central/State government/any other Public Undertaking/Autonomous Bodies? If so, please furnish full details.

22. Name and address of not less than two persons to whom a reference can be made, if required

1.	2.
----	----

23. Whether the applicant has ever served in Central or state Government or any other organisation and is in receipt of any pension, gratuity or employer's share to the Provident Fund?

24. Any other information you may wish to add

**Declaration**

I hereby declare that the above information are factually correct to the best of my knowledge. I also understand that I will be disqualified if any of the information furnished by me is found to be incorrect.

Place : \_\_\_\_\_ Signature of the candidate  
Date : \_\_\_\_\_ Name \_\_\_\_\_

## Office of the Development Commissioner

Cochin Special Economic Zone (CSEZ)  
Govt. of India, Ministry of Commerce & Industry  
Kakkanad, Cochin - 682 037

It is proposed to fill up eight (8) posts of Preventive Officers (Group 'B' - Non-Gazetted, Non-Ministerial) in the Pay Band of Rs.9300-34800 (PB-2) with Grade Pay of Rs.4600/- in the Office of the Development Commissioner, Cochin Special Economic Zone, Kakkanad, Cochin - 682 037. The experience and qualifications required for the post is indicated in Annexure-I.

2. It is requested that applications in the given proforma (Annexure-II) of eligible and willing officials who could be relieved in the event of selection, alongwith the following documents may please be forwarded to the Development Commissioner, CSEZ through proper channel **within sixty (60) days** from the date of publication:

- Complete and up-to-date confidential Reports for the last five years in original or attested Photostat copy.
- Integrity Certificate
- Vigilance Clearance
- Details of minor or major penalties imposed during the last ten years.

3. Applications received after the last date or without the confidential reports or other relevant documents or otherwise found incomplete will not be considered.

4. The appointment will be on deputation basis. The period of deputation shall ordinarily not exceed 3 years. The terms of deputation of Preventive Officers will be regulated in accordance with the instructions contained in Ministry of Personnel, Public Grievances & Pensions, Department of Personnel & Training O.M. No.2/29/91-Estt(Pay II) dated 5.1.1994 as amended from time to time, to draw pay of the post held by them in the parent department plus deputation allowance in accordance with and subject to the conditions laid down in the Ministry of Personnel, Public Grievances & Pensions, Department of Personnel & Training O.M.No.2/8/97-Estt.(Pay II) dated 11.3.1998 and O.M.No.2/22(B)/2008-Estt.(Pay II) dated 3.9.2008 as modified from time to time and such other general or special orders issued by the Ministry of Personnel, Public Grievances & Pensions. Officials who volunteer for the post will not be permitted to withdraw their names later.

5. Advance copy of applications will not be entertained. The details are also available on the website [www.csez.gov.in](http://www.csez.gov.in).

### ANNEXURE- I

#### EXPERIENCE AND QUALIFICATIONS FOR THE POSTS

**Name of the post :** Preventive Officer  
**Scale of Pay :** Rs.9300-34800/- (PB-2) with Grade Pay of Rs.4600/- (Revised)  
**Method of recruitment :** Deputation

#### Eligibility

Officers of the Central Board of Excise and Customs -

(a) (i) holding analogous posts on regular basis in the parent cadre or department; or

(ii) With six years' service in the grade rendered after appointment thereto on regular basis in the Pay Scale of Rs.4500-7000/- (Pre-revised) or equivalent in the parent cadre/Department; and

(b) possessing two years' experience in Customs or Central Excise procedural work.

**Note:** Period of deputation including period of deputation in another ex-cadre post held immediately preceding this appointment in the same or some other Organization/Department of Central Government shall ordinarily not exceed three years. The maximum age limit for appointment by deputation shall be not exceeding 56 years as on the closing date of the receipt of applications.

### ANNEXURE - II

#### BIODATA

- Name of the post for which applied
- Name and Office Address (in Block letters) of the applicant
- Date of Birth
- Date of retirement
- Educational Qualifications
- Present Basic Pay
- Post held on regular basis with Scale of Pay and date of appointment thereto on regular basis
- Permanent post held with scale of pay and date of confirmation
- Details of Employment, in chronological order (enclose a separate sheet, duly authenticated by your signature, if the space below is insufficient)

S/No.	Office/Institution/ Organization	Post held	From	To	Scale of pay and basic pay	Nature of duties
-------	----------------------------------	-----------	------	----	----------------------------	------------------

- Nature of present employment, ie, whether adhoc, temporary or permanent
- In case the present employment is held on deputation/contract basis, please state
  - The date of initial appointment
  - Period of appointment on deputation / contract
  - Name of the present Office /Organization to which you belong
- Additional information, if any, which you would like to mention in support of your suitability for the post (Enclose a separate sheet, if the space is not sufficient)
- Whether belongs to SC/ST.

Date \_\_\_\_\_ Signature of the applicant  
Mobile No. \_\_\_\_\_  
e-mail: \_\_\_\_\_

EN 50/65

No.5-1/2011-Admn.IV  
Government of India

### Ministry of Agriculture Deptt. of Animal Husbandry, Dairying & Fisheries

Krishi Bhavan, New Delhi  
CORRIGENDUM

In this Department's advertisement of even number dated 26th May, 2011 regarding filling up of the post of Dy. Manager(Stores & Purchase)in Delhi Milk Scheme by Promotion/Transfer on deputation (including short term contract), the third line of para No.2, may be read as under:

" amongst the officers under the Central/State

Government/ Autonomous or Statutory Organization"

It is requested that the particulars of the eligible officers working in the State Governments who could be spared in the event of their selection may kindly be sent to this Department in the prescribed proforma together with their up to date CR dossiers, Vigilance clearance, Integrity certificate and statement of major/minor penalties imposed during the last ten years **within 30 days** from the date of issue of this corrigendum. The candidates who have already applied need not apply.

(K.C Patra)

Under Secretary to the Govt. of India  
EN 50/70

#### CHECK LIST FOR THE CANDIDATES (TO BE ATTACHED TO THE APPLICATION) (Put X in the Boxes applicable)

- Copy of application completed and attached
- Photograph affixed on the application and one extra photograph
- Application signed
- An attested copy of each of the following certificates is attached
  - Proof of Date of birth
  - Caste certificate
  - Educational & professional qualifications (Mark list/Board/Degree Certificate from SSC onwards)
  - Experience Certificate
  - Domicile certificate if Domiciled in Kashmir Division of the State of Jammu & Kashmir, if applicable
  - Relevant document if a family member of those who died in 1984 riots, if applicable
  - Check list attached

Place .....

Signature.

Date : .....

Name .....

EN 50/67

**PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur**  
 (An Institute Established by MHRD Govt. of India)  
 Dumna Airport Road, PO: Khamaria, Jabalpur-482005 (MP) INDIA  
 Advertisement for Faculty Positions  
**Advertisement No. 1/2013**  
 PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur, one of the premier technical institutes of the country, established by Ministry of Human Resource Development Government of India invites applications from well qualified and strongly motivated candidates for faculty positions at the level of Professor/Associate Professor/Assistant Professor in Computer Science and Engineering Electronics & Communication Engineering, Mechanical Engineering, Mathematics, Design and Physics and Associate/Assistant Professor in English Language/ Literature. For details on the basic qualifications, experience and other related information including reservation policy, please refer to the Institute website. [www.iiitdmj.ac.in](http://www.iiitdmj.ac.in) email: [facapp@iiitdmj.ac.in](mailto:facapp@iiitdmj.ac.in) Last date for submission of completed application forms **02-04-2013**

Director  
 davp 21263/11/0004/1213 EN 50/5

**Government of India Ministry of Agriculture Department of Agriculture & Cooperation Corrigendum**  
 The last date for receipt of applications for the post of Joint Director (Extension), Directorate of Extension, whose advertisement was published in the Employment News, dated 1<sup>st</sup> - 7<sup>th</sup> December, 2012 (Advt. No. EN 35/2) stands extended. Applications for this post, complete in all respects, (alongwith photo copies of ACRs/APARs of last five years i.e. from 2007-2008 to 2011-2012 duly attested on each page by an officer not below the rank of an Under Secretary to the Government of India, Vigilance Clearance Certificate, Integrity Certificate, Major/Minor Penalty Statement during last ten years) can now be sent **within 15 days** from the date of publication of this corrigendum in the Employment News/Rojgar Samachar. Full details of the vacancy are available on this Department's website ([www.agricoop.nic.in](http://www.agricoop.nic.in)). Candidates who have already applied should submit remaining documents, if any, within the extended time limit.  
 EN 50/30

**Sardar Swaran Singh National Institute of Renewable Energy**  
 (An Autonomous Institution of More Govt. of India)  
 Advt. No. 107/4/2011-NIRE  
**Recruitment for JRF/SRF/PDF**  
 Applications are invited for JRF/SRF/PDF positions. Candidates having zeal, motivation and experience in Chemical / Mechanical / Agriculture / Civil / Biochemical / Energy / Environmental Engineering & Allied Science., etc may apply **within 21 days** to the Director, Sardar Swaran Singh National Institute of Renewable Energy (SSS-NIRE), 12-KM Stone, Jalandhar-Kapurthala Road, Wadala Kalan, Kapurthala-144601. The detailed guidelines, proforma and advertisement can be downloaded from [www.nire.res.in](http://www.nire.res.in) or [www.mnre.gov.in](http://www.mnre.gov.in)  
 Director  
 EN 50/48



**SAHA INSTITUTE OF NUCLEAR PHYSICS**  
 (Aided Institute under Department of Atomic Energy, Govt. of India)  
 Sector-1, Block-AF, Bidhannagar, Kolkata-700 064  
 Phone : 2337-5345-49 (5 lines), Fax : 0091-33-2337-4637, Website : [www.saha.ac.in](http://www.saha.ac.in)

**Recruitment in various Technical posts under Special Recruitment Drive (2nd attempt)**

Applications are invited from eligible Indian Nationals for filling up the following permanent posts of various Divisions/Sections of this Institute on direct recruitment basis. D.A., H.R.A., Transport Allowance etc. as admissible to Central Govt. employees under the rules in force from time to time will be admissible. The details of the posts are as under :-

- Experimental Condensed Matter Physics Division** - Scientific Assistant 'B' (1) post (SC) - Technician 'C' (1) post (ST)
- Structural Genomics Division** - Scientific Assistant 'B' (1) post (ST)
- Electron Microscope Facility** - Scientific Assistant 'B' (1) post (SC)
- Library** - Technician 'B' (1) post (ST)
- Building Maintenance (Civil) Section** - Engineer 'D' (1) post (OBC) - Scientific Assistant 'B' (1) post (ST)
- Building Maintenance (Elect.) Section** - Engineer 'D' (1) post (OBC) - Scientific Assistant 'B' (2) posts (1-SC, 1-ST)

**Scale of Pay**

- Engineer 'D' : Pay Band (PB-3) Rs. 15600-39100 + Grade Pay Rs. 6,600/-
- Scientific Assistant 'B' : Pay Band (PB-2) Rs. 9300-34800 + Grade Pay Rs. 4,200/-
- Technician 'C' : Pay Band (PB-1) Rs. 5200-20200 + Grade Pay Rs. 2,400/-
- Technician 'B' : Pay Band (PB-1) Rs. 5200-20200 + Grade Pay Rs. 2,000/-

**A. Eligibility Conditions :**

**A.1. Essential Qualifications :**  
**Engineer 'D'** - 1st class B. E./B. Tech. with 7 years' post qualification experience or M.Tech. with 5 years' post qualification experience.  
**Scientific Assistant 'B'** - B. Sc. with minimum 60% marks or B.Sc. (Hons.) with minimum 55% marks.  
**For B. M. (Civil)/(Electrical) Section** - Diploma/Licentiate in Civil/Electrical Eng. (3 years after secondary) with 6 years' post qualification experience.  
**Technician 'C'** - 8 years post qualification experience (ITI certificates based on a curriculum of one year duration), OR 7 years post qualification experience (ITI certificates based on a curriculum of two years duration).  
**Technician 'B'** - 3 years post qualification experience (ITI certificates based on a curriculum of one year duration), OR 2 years post qualification experience (ITI certificates based on a curriculum of two years duration).  
**For Library - Higher Secondary (at least 50% marks with science & mathematics) or Secondary (at least 60% marks) with 5 years' post qualification experience.**

**A.2. Desirable Qualification/Experience :**

- Experimental Condensed Matter Physics Division - Scientific Assistant 'B' (1) post**  
**Desirable qualification/experience :** Diploma in Engineering/Technology. Minimum 3 years working experience in cryogenic/refrigeration system and working knowledge of computers. Operation and maintenance work on shift duty in a liquid nitrogen and liquid helium plant.  
**Technician 'C' (1) post**  
**Desirable qualification/experience :** Working experience preferably in cryogenic/refrigeration systems. Operation and maintenance work on shift duty in the cryogenic plant room.
- Structural Genomics Division : Scientific Assistant 'B' (1) post**  
**Desirable qualification/experience :** B. Sc. (Hons.) in Physics/Electronics. Candidates with 1-2 years of suitable technical experience.
- Electron Microscope Facility : Scientific Assistant 'B' (1) post**  
**Desirable qualification/experience :** Minimum 3 years working experience with Electron Microscope and have sound knowledge of computer.
- Library : Technician 'B' (1) post**  
**Desirable qualification/experience :** Knowledge of using computer.
- Building Maintenance (Civil) Section :**  
**(i) Engineer 'D' (1) post**  
**Desirable qualification/experience :** B. E. (Civil) with minimum 1st class from a recognized University. Out of essential experience of 7 years, at least 4 years' experience in design, estimate & execution of large construction projects of both RCC/Steel structures comprising of office/laboratories/residential complexes, Roads, Public Health etc. Should have knowledge of engineering software, and conversant with project planning.  
**(ii) Scientific Assistant 'B' (1) post**  
**Desirable qualification/experience :** Diploma in Civil Engineering with 4 years' experience of supervision of civil works related to RCC & Steel Structure, preparation of schedule of work and working drawing tender & estimate related to maintenance of office, laboratory building, housing, sanitary & PH works, Road works etc. should have knowledge in AutoCAD drawing.
- Building Maintenance (Electrical) Section :**  
**(i) Engineer 'D' (1) post**  
**Desirable qualification/experience :** Out of essential experience of 7 years minimum 4 years experience but not more than 8 year in power distribution and designing.  
**(ii) Scientific Assistant 'B' (1) post for AC Maintenance (Reserved for SC candidates)**  
**Desirable qualification :** Diploma in Electrical Engineering/Mechanical Engineering (3 years after S. S. C.) with minimum of 4 years experience in air conditioning systems and an exposure to electronic controls would be an added qualification.  
**(iii) Scientific Assistant 'B' (1) post (Reserved for ST candidates)**  
**Desirable qualification :** Minimum 4 years of relevant experience in electrical distribution system and an exposure of power electronics would be an added qualification.  
**Age Limit :** Between 18 and 27 years for Technician 'C'/'B' and 32 years for Engineer 'D'/Scientific Assistant 'B'. Age relaxation as per Govt. rules.  
**Note :** The crucial date for determining the age limit shall be the last date of receiving the application i.e. **15th April, 2013**. The qualification etc. will also be reckoned on the same date.  
**General Information :**  
**i)** Applicants working in Govt./Semi Govt./Public Sector Undertaking should apply through proper channel with a certificate of Vigilance Clearance.  
**ii)** Attested photo copies of documents in respect of qualification, experience and caste certificate/ex-serviceman (for reserved categories only) of the candidate must be submitted.

- The prescribed qualification is the minimum and mere fulfilling the essential and desirable qualification will not entitle an applicant to be called for test/interview. The Institute reserves the right to restrict the number of candidates for test/interview to a reasonable limit on the basis of qualifications and experience higher than the minimum prescribed in the advertisement.
- A written/trade test may also be conducted before the interview.
- Competent authority may relax the age or qualification in deserving cases.
- Outstation candidates of reserved category called for the interview/test will be entitled for reimbursement of sleeper class fare by rail, if otherwise applicable as per rules.
- No correspondence will be entertained with candidates not selected for interview/test/appointment.
- Candidates appointed will be governed by the New Contributory Pension Scheme introduced w.e.f. 01.01.2004.
- Any subsequent amendments/modifications etc. on this matter will be notified in the Institute website only which may be referred by the interested candidates continuously.
- Reservation for persons with disabilities (PWD) will be as per Govt. orders in vogue.
- Application fee of Rs. 100/- (Rupees one hundred) only should be submitted in the form of demand draft in favour of Registrar, Saha Institute of Nuclear Physics payable at Kolkata. SC/ST/PWD/Female candidates will not be required to submit any fees.
- No interim queries will be entertained.
- Candidates applying for more than one post should apply separately.

Application giving full details for the post along with the attested copies of relevant certificates/testimonials in the following format with a recent passport size photograph pasted on the right hand top corner of the application should reach the Registrar at the above address within 4.00 p.m. on or before **15th April, 2013** duly superscribed as "**Application for the post of.....**" mentioning the category viz. SC/ST/OBC.

**PROFORMA CURRICULUM VITAE**  
 (To be furnished in duplicate)

Paste self attested photograph

- Advt. No. / Item No. :
- Post applied for :
- Name of the applicant (in block letters) :
- Father's/Guardian's name :
- Date of birth (in Christian Era) :
- Permanent address :
- Address for correspondence (with e-mail & Mobile No.) :
- Nationality :
- Religion :
- Gender :
- Marital status :
- Place of birth and state :
- Whether belonging to SC/ST/OBC/Ex-Servicemen :
- Educational Qualifications (Matric onwards) (Attested photocopies of certificates to be enclosed) :

Sl. No.	Level	Exam Passed/ Degree Trg.	Division/ Grade% of Marks	Year of Passing	Duration of the Degree Diploma	Board/ University	Subject	Subject of Specialisation

- Other Qualifications/Training (Photocopies of certificates to be enclosed) :
- Details of Employment in chronological order, (including the present post held) starting from initial appointment.  
 Date of Declaration of EQ (Indicate day, month, year) :

Sl. No.	Office/Orgn. with address & Telephone No.	Post held	Regular/ Ad-hoc/ deputation	From	To	Total Period			Scale of Pay & Basic Pay (Pre-revised/revised)	Nature of duties
						Years	Months	Days		

- Additional information, if any, in support of your suitability for the post. :
- Do you claim Age relaxation (if yes, mention under which categories). :
- Details of fees submitted. :

**DECLARATION**

I do hereby declare that the particulars furnished above by me are correct to the best of my knowledge and belief. I further undertake that I shall not withdraw my candidature for the post applied for.

**Place :** \_\_\_\_\_  
**Date :** \_\_\_\_\_  
 (Signature of the applicant)  
 Name \_\_\_\_\_

**Details of enclosures :**

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**To be certified by the Cadre Controlling Authority/Employer**

Certified that the particulars furnished by the officer are correct as per the records held in this office and no disciplinary/vigilance case is pending/contemplated against the officer and that no major/minor penalty has been awarded to him during the past 10 years and there is no doubt about the integrity of the officer.

(Name, Signature & Seal of the Cadre Controlling Authority/Employer)

**No. :** \_\_\_\_\_  
**Date :** \_\_\_\_\_  
**No.SINP/Estt/Advt./02/2013** Registrar

**NATIONAL POWER TRAINING INSTITUTE**  
 An ISO 9001 & ISO 14001 Organization  
 (Ministry of Power, Govt. of India)  
 Website: <http://www.nptinagpur.com> / [www.npti.in](http://www.npti.in)

**ADMISSION NOTICE FOR PGDC COMMON ENTRANCE TEST (PGDC-CET) 2013**  
**POST GRADUATE DIPLOMA COURSE (PGDC) IN THERMAL POWER PLANT ENGINEERING (2013-14)**  
 (Covers the Mandatory requirements under Indian Electricity Rules)

**WHY SHOULD YOU JOIN?** The main aim of the course is to develop a pool of technically trained manpower readily available for recruitment to the Indian Power Sector. Besides, the course shall enhance the knowledge and skills of the Engineers sponsored by the Power Utilities etc.

**ABOUT THE COURSE:** This is a modular course of one-year duration. Formal training is held at Regional Institutes of NPTI Located at 1. Badarpur (New Delhi) 2. Nangal (Punjab) 3. Neyveli (TN) 4. Durgapur (WB) 5. Guwahati (Assam) and 6. Nagpur (Maharashtra). On-job training is conducted at the nearby Thermal Power Stations and on state-of-the-art Simulators at NPTI Faridabad/Badarpur /Nagpur. **The course covers the syllabus as per Indian Electricity Rules.**

**ELIGIBILITY:** B.Tech / B.E. in Mechanical, Electrical Engineering or its equivalent. Those appearing in their final year examination can also apply. However, they must submit their degree/provisional degree certificate at the time of admission.

**SELECTION CRITERIA FOR ADMISSION:** Merit based on Common Entrance Test (CET) result followed by counseling at NPTI Nagpur. CET will be held on **23/06/2013** at 8 cities; Faridabad, Badarpur (New Delhi), Nagpur, Durgapur, Neyveli, Bangalore, Guwahati and Nangal.

**AGE LIMIT:** For non-sponsored candidates the age limit as on 1/07/2013 is 27 years. Age relaxation in case of reserved category candidates is as per G.O.I. norms. No age limit for the sponsored candidates.

**TOTAL SEATS:** 340. Reservation of seats for SC/ ST/ OBC/ Physically challenged as per Govt. of India norms. 25% seats are reserved for candidates sponsored from Power Utilities having more than one year experience as on 1st July 2013 and more than 60% marks in Mechanical or Electrical Engineering Degree. The ratio of Mechanical and Electrical Engineering Candidates will be 60:40. The seat allocation of the Institutes is shown below –

Badarpur – 65	Nangal – 40	Neyveli – 65
Durgapur – 65	Guwahati – 40	Nagpur – 65

Total No. of seats may vary as per requirement. Vacant seats in sponsored category may be filled by non sponsored category and vice-versa if required.

**PLACEMENT:** To provide career opportunities in the Indian Power Sector, NPTI is maintaining close linkages with Power Utilities and reputed companies for employment of the trained engineers. Most of the students are placed in reputed Power Sector Companies before the completion of the course.

**HOW TO APPLY:** Applications are to be filled online with details of Demand Draft for the prescribed registration fees of **Rs.900/- (including service tax)** in favour of "NPTI Nagpur", payable at Nagpur must be ready at the time of registration and soft copy of recent passport size photograph. The other details are available on our Website <http://www.npticet.com>. Each applicant will be given a unique ID on successful registration at site (online). This ID must be preserved for future reference. On registration the hard copy of application with the Demand Draft should be sent to **The Principal Director, National Power Training Institute (WR), south Ambazari Road, Gopal Nagar, Nagpur-440 022** latest by **03/05/2013**. The registration shall be confirmed only after the receipt of the hard copy of application with Demand Draft.

**COURSE FEE:** For non-sponsored candidates **Rs.2, 00,000 + Service Tax @12.36%**. For candidates sponsored from PSUs / Private Utilities **Rs.3, 10,000/- + Service Tax @12.36%**. There is no fee concession for any category of candidates.

**COURSE FEE FOR FOREIGN NATIONALS:** SAARC Countries: **US\$13,000 + Service Tax @12.36%**  
 Other Countries: **US\$ 15,000 + Service Tax @12.36%**

The cost of Transportation to Industries/ Power Stations is to be borne by the participants.

**LODGING/BOARDING:** Hostel Facility is available at all the Institutes and provided on first come first served basis, subject to availability on extra charges. Separate hostel for girl candidates.

IMPORTANT DATES		
1. Online registration	01/04/13 to 20/04/13	
2. Last date of receipt of hard copy of application along with Demand Draft	03/05/2013	
3. Date & Time of PGDC CET- 2013	23/06/2013 (Sunday) 1100 to 1330 Hrs	
4. Date of declaration of result on our Website	13/07/2013	
5. Dates of Counseling at Nagpur	29/07/13 to 01/08/13 (4 days)	
6. Commencement of Course	19/08/2013	
7. Joining Period	19/08/2013 to 22/08/2013	
8. Date of display of status of choice for change of Institute (if available)	28/08/2013	
9. Date of Second Counseling (if required)	02/09/2013	

**Note:** All Instructions for filling on-line Application form, Notifications, Prospectus or any further information to the candidates regarding the PGDC-CET-2013 shall be displayed on our website [www.npticet.com](http://www.npticet.com).

**FOR ANY INFORMATION**  
 Contact No. : 0712-2236545/2231478/2235098, Fax No. 0712-2220413  
 Website : [www.npticet.com](http://www.npticet.com)

FOUR DECADES OF SERVICE TO THE POWER SECTOR EN 50/75

**Admission to Joint MTech/MCP-PhD Programme for the Academic Year 2013-2014 IIT KHARAGPUR**

Applications are invited for admission to Joint MTech/MCP-PhD Programme for the academic year 2013-2014 at IIT Kharagpur. Online Application Form submission through Website: <http://gate.iitkgp.ac.in/mtech> starts on March 18, 2013 and closes on April 12, 2013. The hard copy of completed Application Form along with necessary enclosures must be sent by Speed Post so as to reach The Chairman, GATE, IIT Kharagpur, Kharagpur 721 302, West Bengal, by April 19, 2013.  
 Chairman, Postgraduate Admissions Committee 2013

EN 50/19

**KONKAN RAILWAY CORPORATION LTD.**  
 (A Government of India Undertaking)  
 Corporate Office: Belapur Bhavan, Sector 11, CBD Belapur, Navi Mumbai 400614

**NOTIFICATION NO.CO/P-R/04/2013**  
 The Corporation invites applications from regular employees working in Railways for appointment on Immediate Absorption basis against the regular posts in Konkan Railway Corporation Limited.

Sr. No.	Category	Pay scale as per Choice		No. of Post	Upper Age limit as on 01.07.2013	Eligibility Criteria for Immediate Absorption
		CDA	IDA			
01	Dy. Chief Safety Officer	PB-4, ₹ 37400 – 87000 with GP ₹ 8700/- in CDA OR PB-3 ₹ 15600 – 39100 with GP ₹ 7600/- as per suitability	E6 (36600-62000) OR E5 (32900-58000) as per suitability	01	55 years	PB-3 ₹15600-39100 with GP ₹ 7600/- OR PB-3 ₹15600-39100 with GP ₹ 6600/-

The shortlisted eligible candidates may be required to undergo Personal Interview and followed by Medical examination as per Railways standards before being employed in Konkan Railway Corporation Limited.

Candidates should ensure that they see the Instructions, eligibility and other details of the notification on [www.konkanrailway.com](http://www.konkanrailway.com) under the link Departments → Human Resources → Recruitment → Notification. Applications in prescribed format as given at the above link and completed in all respects along with enclosures and clearly mentioning the above Notification No. and Post applied for should reach this Office at Belapur Bhavan, Plot No. 6, Sec-11, CBD Belapur, Navi Mumbai 400614 on or before 17:30 hrs. of 28.03.2013. Incomplete Application forms or the applications not accompanied by the required documents will be rejected and no correspondence on the same shall be entertained.

Date : 19.02.2013  
 Place : Belapur  
 Chief Personnel Officer

EN 50/55

**FDDI**  
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 25 Years of Excellence  
**ADMISSIONS 2013**  
 For Full Time Degree Programmes  
**NO. 1 INSTITUTE IN RETAIL MANAGEMENT\***

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- Fashion Merchandising & Retail Management
  - Footwear Design & Production Management
  - Creative Design & CAD/CAM
- BACHELORS DEGREE PROGRAMMES**
- Fashion Design
  - Footwear Design & Production Management
  - Leather Goods & Accessories Design
- INTEGRATED PROGRAMMES**
- Business Management
  - Retail Management

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- Fully Wi-Fi Campuses with air-conditioned classrooms & labs
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- S.C.A.M., Italy • PFI, Germany • SATRA, UK
- TBU, Zlin, Czech Republic

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Tata • Reliance • Bharti Retail • Pantaloon • Wills Lifestyle • Carlton London • Louis Vuitton • Bata • Zara • Calvin Klein • FCUK  
 Prospectus can be obtained from FDDI Campuses and select branches of Axis Bank across India on payment of Rs. 500/-.  
 The prospectus can also be downloaded from our website: [www.fddiindia.com](http://www.fddiindia.com).

**CAMPUS: • NOIDA • RAE BARELI • CHENNAI • ROHTAK • CHHINDWARA • KOLKATA • JODHPUR • GUNA**

**FOOTWEAR DESIGN & DEVELOPMENT INSTITUTE**  
 (Ministry of Commerce & Industry, Govt. of India)  
 NOIDA: A-10/A, Sector-24, Noida. Ph: 0120-4500152, 9310957007, 9718991359, 1800-180-3668 (Toll Free)  
 • RAE BARELI: 07275013075 & 08004316733 • CHENNAI: 09003025470 & 09884735740 • JODHPUR: 08947920211  
 • KOLKATA: 033-64992116, 09051761598 • ROHTAK: 09896100083 • CHHINDWARA: 08889938018, 08965905025  
 • GUNA: 1818991359 Fax: 0120-2412556, 2411301, E-mail: admission@fddiindia.com, Website: [www.fddiindia.com](http://www.fddiindia.com)

EN 50/56

**INDIAN INSTITUTE OF TECHNOLOGY INDORE**  
 Advt. No.: IITI/Estt./NT Rect/CE & SE/Admin/JAN2013

**NON-TEACHING RECRUITMENT**

IIT INDORE invites applications in prescribed forms from outstanding highly motivated Indian nationals (those of Indian origin) for following positions:

S.No	Name of the Post	Emoluments	No. of posts	Position
1	Chief Engineer (Project)	(₹ 37,400-67,000) + Grade Pay of ₹ 10,000/-	1	On Deputation/ Contract basis
2	Superintendent Engineer	(₹ 37,400-67,000) + Grade Pay of ₹ 8,700/-	1	Permanent

The detail requirements in terms of qualification and experience is available on the institute website [www.iiti.ac.in](http://www.iiti.ac.in). The last date for submission of application forms is **21.03.2013**  
**REGISTRAR**

EN 50/25

**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**  
 Powai, Mumbai - 400 076.

**ADVERTISEMENT NO: H - 67/P(16)12-13**  
**Want to contribute to cutting edge research?**

Positions of Senior Research Fellow (SRF), Research Associate (RA), Post-Doc Research Associate (PDRA) are available in the following projects.

Job Code	Project Name, Number of Posts, Eligibility & Consolidated Salary
<b>Chemical Engineering</b>	
P(16-1)	S.G./Noise propagation and distribution among enzymatic cascades <b>SRF:</b> (1 Post) <b>Eligibility :</b> M.Sc Bioinformatics <b>Salary :</b> Consolidated salary ₹ 14000/- p.m. <b>Job Profile :</b> Construction and analysis of tumor necrosis factor alpha signaling network
<b>Humanities &amp; Social Sciences</b>	
P(16-2)	Behavioural and neural studies of auditory processing in dyslexia <b>RA:</b> (1 Post) <b>Eligibility :</b> M.A/ in Cognitive/Clinical Psychology M.Sc in Neuroscience/Life Science Experience: Knowledge of EEG Machine, Eprime and BESA (Optional) <b>Salary :</b> Consolidated salary ₹ 22000/- <b>Job Profile :</b> Handling EEG Biosemi system, data recording and analysis.
P(16-3)	Developing automated text-image alignment of Sanskrit Manuscripts <b>PDRA:</b> (2 Post) <b>Eligibility :</b> Doctoral degree specializing in Sanskrit grammar (vyakarana) or Indic epigraphy, advanced training in Sanskrit, and experience working with Sanskrit manuscript cataloging experience, expertise in XML, competence in the text-encoding initiative (TEI) standards and HTML. <b>Salary :</b> Consolidated salary ₹ 25000/- p.m.

The positions are temporary initially for a period of one year and tenable only for the duration of project. The selection committee may offer lower or higher designation and lower or higher salary depending upon the experience and performance of the candidate in the interview. Our Website <http://www.ircc.iitb.ac.in/IRCC-Webpage/rnd/JobOpportunities.jsp> Last Date of the receipt of the application is 29<sup>th</sup> March, 2013.  
 Candidate should apply online at <http://www.ircc.iitb.ac.in/IRCC-Webpage/rnd/HRMSLoginPage.jsp>, if there is any problem applying online, send in the prescribed Application Form available at [http://www.ircc.iitb.ac.in/IRCC-Webpage/rnd/PDF/Application\\_online.pdf](http://www.ircc.iitb.ac.in/IRCC-Webpage/rnd/PDF/Application_online.pdf). Candidates can apply for multiple positions with separate Application Form for each position. The postal address to send the application is as given below.

Senior Administrative Officer (R & D Office), IRCC Wing,  
 SJMSOM Building, Indian Institute of Technology Bombay, Powai, Mumbai-400076, Phone: 022-2576 4078

EN 50/38

**Government of India  
Ministry of Agriculture  
Department of Agriculture and Cooperation**

Subject: Filling up one post of Senior Analyst (O&M) in the Department of Agriculture and Cooperation on Deputation (including Short Term Contract) basis in the scale of pay of Rs. 10000-325-15200 (pre-revised) corresponding to PB 3 Rs. 15600-39100 with Grade Pay Rs. 6600 -- regarding.

Applications are invited from eligible and suitable officers for filling up one post of Senior Analyst (O&M) in the Department of Agriculture and Cooperation on Deputation (including Short Term Contract) basis. The post is in the pre-revised scale of pay of Rs. 10000-325-15200 (corresponding to PB 3 Rs. 15600-39100 with Grade Pay Rs. 6600). Details of the post, eligibility conditions etc. is given at Annexure-I. Pay of the officer selected for appointment on deputation basis will be regulated in terms of Department of Personnel and Training's Office Memorandum No. 6/8/2009-Estt. (Pay II) dated 17<sup>th</sup> June 2010.

2 Applications of only such officers/candidates will be considered that are routed through proper channel and are accompanied by (i) bio data (in triplicate) as per the proforma (Annexure-II) (ii) Photocopies of ACRs for the last five years duly attested on each page by an officer not below the rank of Under Secretary (iii) Vigilance Clearance (iv) Integrity Certificate (v) Statement giving details of Major or Minor Penalties imposed on the officer, if any, during the last 10 years and (vi) Cadre Clearance Certificate, in the prescribed format given at Annexure-III.

3 It is, therefore, requested that applications of suitable and eligible officers and who can be spared immediately in the event of selection may be sent directly to the Under Secretary (Pers-II), Department of Agriculture and Cooperation, Krishi Bhawan, New Delhi- 110 001 **within a period of 60 days** from the date of issue/ publishing of this advertisement.

4 Advance copies of applications or those received after the prescribed closing date or not accompanied by the required certificates/documents are liable to be rejected.

**(K. Sanjayan)  
Under Secretary to the Government of India  
Ph : 2338 3053  
ANNEXURE-I**

**Designation of the post:** Senior Analyst (O&M)

**Number of post:** 1 (one)

**Classification of post :** General Central Service, Group 'A' Gazetted Non-Ministerial

**Pay Scale :** Rs. 10000-325-15200 (pre-revised) corresponding to PB 3 Rs. 15600-39100 with Grade Pay Rs. 6600.

**Age limit :** Maximum age limit for appointment on Deputation (including short term contract) shall not exceed 56 years as on the closing date of receipt of applications.

**Eligibility conditions for appointment on Deputation (including short term contract) basis:** Officers of the Central Government, failing which officers from the State Government or public sector undertakings or autonomous or local bodies according to requirement having the following qualifications and experience :

(i) a Degree of a recognized University or its equivalent

(ii) rendered at least 5 years regular service in posts in the scale of Rs. 8000-275-13500 (pre-revised) or 8 years regular service in posts in the scale of Rs. 6500-200-10500 (pre-revised) or equivalent and

(iii) completed successfully or be eligible to undergo the Advanced Management Services Course of the Institute of Secretariat Training and Management, Defence Institute of Work Study or a comparable training in any other recognized institute.

**Explanation :** If an officer has not already undergone the said course is selected, he shall be required to undergo the said course at the earliest and his continued retention in the post shall be subject to the condition that he completes the said course successfully within one year of the date of his appointment OR

(iv) acquired at least 3 years' experience as Junior Analyst (Work Study) in the Central Government offices/ Ministries.

**Place of posting :** New Delhi.

**Period of Deputation :** Period of deputation (including short term contract in another ex-cadre post held immediately preceding this appointment in the same or some other organization/ Department of the Central Government) shall ordinarily not exceed 5 years.

**Duties and responsibilities attached to the post:** Given in the Statement below.

**Duties of Senior Analyst**

a) Work measurement studies: monitoring of all activities in the Deptt. of Agriculture & Cooperation: preparing and monitoring of programmes for O&M inspection of various Sections/Unit etc. of the Department of Agriculture & Cooperation and its attached and Sub Offices and also nominate Inspecting Officers for these inspections; enforcing arrears clearance drives in the Department which includes recording, indexing and weeding out of old records etc. Organisational Chart: office lay out; allocation of disputed receipts; monitoring of OTA expenditure and clarification on office procedure etc.

b) All work relating to Public Grievances Cell and Citizen Charter.

c) Implementation of the recommendations of the Right-sizing committee & Expenditure Reforms Commission etc.

d) Implementation of Cash Award Scheme of high performance of O&M activities.

e) Providing material for Annual Report and Performance Budget of the Department etc.

f) Work relating to Right to Information Act, 2005

**ANNEXURE-II**

**CURRICULUM VITAE PROFORMA**

1. Name and Address (in Block letters) :

2. Date of Birth (In Christian era) :

3. Date of retirement under Central/State Government Rules. :

4. Educational Qualifications:

5. Whether Educational and other qualifications required for the post are satisfied. (If any qualification has been treated as equivalent to the one prescribed in the rules state the authority for the same) . :

	Qualifications/ Experience required	Qualifications/Experience possessed by the Officer
Essential	(1) (2) (3)	
Desired	(1) (2)	

6. Please state clearly whether in the light of entries made by you above you meet the requirement of the post.

7. Details of Employment in chronological order. (Enclose a separate sheet duly authenticated by your signature if the space below is insufficient.

Office/Institution	Post Held	From	To	Scale of Pay and Basic Pay	Nature of duties (in detail)

8. Nature of present employment i.e. Ad-hoc or Temporary or Quasi-Permanent or Permanent.

9. In case the present employment is held on deputation/contract basis please state:-

(a) The date of initial appointment

(b) Period of appointment on deputation/contract

(c) Name of the parent Office/Organization to which you belong.

10. Additional details about present employment:-

Please state whether working under (indicate the name of your employer against the relevant column.)

(a) Central Government

(b) State Government

(c) Autonomous Organization

(d) Government Undertaking

(e) Universities

(f) Others

11. Please state whether you are working in the same Department and are in the feeder grade or feeder to feeder grade.

12. Are you in Revised Scale of pay? If yes, give the date from which the revision took place and also indicate the pre-revised scale.

13. Total emoluments per month now drawn

14. Additional information, If any, which you would like to mention in support of your suitability for the post. (This among other things may provide information with regard to (i) Additional academic qualifications (ii) professional training and (iii) Work experience over and above prescribed in the Vacancy Circular/Advertisement)

No.A-12015/1/2012-Admn.I

**Ministry of Agriculture**

**Department of Animal Husbandry, Dairying and Fisheries**

**Krishi Bhavan, New Delhi**

The Department of Animal Husbandry, Dairying and Fisheries extend the last date of application for the following posts:

S. No.	Name of the post, classification and scale	No. of vacancy	Method of recruitment	Previous reference No. and date
1.	Joint Commissioner (Animal Husbandry)	02	Deputation (including short-term contract) basis	File No. A- 12025/3/2012-Admn.I dated 16.11.2012 & 05.12.2012 and Employment News's advertisement dated 17 <sup>th</sup> to 23 <sup>rd</sup> November, 2012 & 22 <sup>nd</sup> to 28 <sup>th</sup> December, 2012.
2.	Deputy Commissioner (Fisheries) General Central Service, Group 'A' PB-3 Rs. 15600-39100 +5400 (GP)	01	Deputation (including short-term contract) basis	File No. A- 12025/6/2011-Admn.I dated 16.11.2012 and Employment News's advertisement dated 17 <sup>th</sup> to 23 <sup>rd</sup> November, 2012.
3.	Deputy Director (Aquatic Quarantine) General Central Service, Group 'A' PB-3 Rs. 15600-39100 + 6600 (GP)	01	Promotion/ Deputation (including short-term contract) basis, (composite method)	File No. A- 12023/4/2011Admn.I dated 16.11.2012 and Employment News's advertisement dated 17 <sup>th</sup> to 23 <sup>rd</sup> November, 2012.
4.	Deputy Commissioner (Fishing Harbour) General Central Service, Group 'A' PB-3 Rs.15600-39100 + 7600 (GP)	01	Promotion/ Deputation (including short-term contract) basis, (composite method)	File No. A- 12023/5/2011-Admn.I dated 16.11.2012 and Employment News's advertisement dated 17 <sup>th</sup> to 23 <sup>rd</sup> November, 2012.
5.	Assistant Commissioner (Fisheries) General Central Service, Group 'A' PB-3 Rs. 15600-39100 + 6600 (GP)	04	Deputation (including short-term contract) basis	File No. A- 12023/2/2011-Admn.I dated 16.11.2012 and Employment News's advertisement dated 17 <sup>th</sup> to 23 <sup>rd</sup> November, 2012.
6.	Assistant Director (Aquatic Quarantine) General Central Service, Group 'A' PB-3 Rs. 15600-39100 +5400 (GP)	01	Promotion/ Deputation (including short-term contract) basis. (composite method)	File No. A- 12023/6/2011-Admn.I dated 16.11.2012 and Employment News's advertisement dated 17 <sup>th</sup> to 23 <sup>rd</sup> November, 2012.
7.	Assistant Commissioner (Fishing Harbour) General Central Service, Group 'A' PB-3 Rs. 15600-39100+ 6600 (GP)	01	Promotion/ Deputation (including short-term contract) basis, (composite method)	File No. A-12023/4/2008-Admn.I dated 16.11.2012 and Employment News's advertisement dated 17 <sup>th</sup> to 23 <sup>rd</sup> November, 2012.

2. For eligibility criteria, i.e. educational qualification, experience, bio-data proforma etc. the applicants are advised to refer to the official website of this Department <http://dahd.nic.in>. The applications for a particular post, complete in all respects, should be forwarded through proper channel to Shri D. Banerjee, Under Secretary (Admn.), Room No.436-A, Krishi Bhavan, New Delhi within **60 days** from the date of publication of this advertisement.

3. The name of the post applied for should be superscribed in bold letter on the envelope containing the application.

4. The persons who have already applied, need not apply again.

**Under Secretary (Admn.)  
EN 50/17**

(Note: Enclose a separate sheet, if the space is insufficient).

15. Please state whether you are applying for deputation (ISTC)/Absorption /Re-employment Basis. (Officers under Central/State Government are only eligible for "Absorption". Candidates of non-Government Organization are eligible only for Short Term Contract.)

16. Whether belongs to SC/ST :

17. Remarks (The candidate may indicate information with regard to (i) Research publication and reports and special projects (ii). Awards/Scholarship/Official Appreciation (iii) Affiliation with the professional bodies/institutions/societies and (iv) any other information.

(Note: Enclose a separate sheet, if the space is insufficient).

I have carefully gone through the vacancy circular/advertisement and I am well aware that the Curriculum Vitae duly supported by documents submitted by me will also be assessed by the Selection Committee at the time of selection for the post.

**Signature of the Candidate  
Address:\_\_\_\_\_**

**Date**

**Countersigned**

**(Employer with Seal)**

No. \_\_\_\_\_ Dated the \_\_\_\_\_

**INTEGRITY CERTIFICATE**

The records of service of Shri \_\_\_\_\_, a regular \_\_\_\_\_ who is being considered for appointment to the post of \_\_\_\_\_ in the Department of Agriculture and Cooperation on deputation basis, have been carefully scrutinized and it is certified that there is no doubt about his integrity.

**Employer with Seal  
(to be signed by an Officer not below the rank of  
Deputy Secretary and equivalent)**

No. \_\_\_\_\_ Dated the \_\_\_\_\_

**NO PENALTY CERTIFICATE**

Certified that no Major/Minor penalty has been imposed during the last ten years on Shri \_\_\_\_\_, a regular \_\_\_\_\_ who is being considered for appointment to the post of \_\_\_\_\_ in the Department of Agriculture and Cooperation on deputation basis.

**Employer with Seal  
(to be signed by an Officer of the rank of  
Under Secretary and equivalent)**

No. \_\_\_\_\_ Dated the \_\_\_\_\_

**VIGILANCE CLEARANCE CERTIFICATE**

Certified that no vigilance case or disciplinary proceeding or criminal proceeding is either pending or contemplated against Shri \_\_\_\_\_, a regular \_\_\_\_\_ who is being considered for appointment to the post of \_\_\_\_\_ in the Department of Agriculture and Cooperation on deputation basis.

**Employer with Seal  
(to be signed by an Officer of the rank of Under  
Secretary and equivalent)**

**EN 50/15**





# IndianOil



## (Refineries Division) BARAUNI REFINERY

**P.O.: Barauni Oil Refinery, Dist. Begusarai 851 114, Bihar.**

(A GOVT. OF INDIA UNDERTAKING)

Applications are invited from Indian Nationals for the following posts:

Sl. No.	Post	Vacancies	Educational Qualification	Experience
1	Junior Engineering Assistant-IV (Production)/ Trainee	25[UR-14, SC-4, OBC-7]	B.Sc. (Physics, Chemistry & Maths) or 3 year Diploma in Chemical Engineering. <b>Regular Scale of Pay :</b> 55% marks in Aggregate in Physics, Chemistry and Maths during B.Sc or 3 year Diploma in Chemical Engineering with 55% marks. <b>Trainees :</b> 60 % marks in Aggregate in Physics, Chemistry and Maths during B.Sc or 3 year Diploma in Chemical Engineering with 60% marks.	<b>Regular Scale of Pay :</b> Minimum one year experience in operations area in large scale Refinery / Petrochemical/ Fertilizer/ Chemical / Process industry. <b>Trainees :</b> No experience for Trainees.
2	Junior Engineering Assistant-IV (Instrumentation) / Trainee	3 [UR-1, SC-1 OBC-1]	<b>Regular scale of Pay :</b> 3 year Diploma in Instrumentation or Industrial Electronics with minimum 55% marks. [Refer Note.-3] <b>Trainees :</b> 3 year Diploma in Instrumentation or Industrial Electronics with minimum 60 % marks.	<b>Regular Scale of Pay :</b> Minimum 1 (one) year post qualification experience in Process Control Instrumentation, Control valves, DCS, PLC etc in continuous process units like Refinery / Petro-chemical / Fertilizer / Power. <b>Trainees :</b> No experience for Trainees.
3	Junior Engineering Assistant-IV (Mechanical)/ Trainee	13[UR-7, SC-1 OBC-5]	<b>Regular Scale of Pay :</b> 3 year Diploma in Mechanical Engineering with minimum 55% marks. <b>Trainees :</b> 3 year Diploma in Mechanical Engineering with minimum 60% marks.	<b>Regular Scale of Pay :</b> Minimum 1 (one) year post qualification experience in mechanical maintenance jobs in Process /Chemical Industries like Refinery / Petro-chemical / Fertilizer / Power. Knowledge of alignment like laser/hot alignment of rotary equipments and maintenance of Centrifugal pumps, Reciprocating pumps / compressors/ Gear box etc is desirable. <b>Trainees :</b> No experience for Trainees.
4	Junior Quality Control Analyst-IV / Trainee	3 [(UR-2, OBC-1) - Out of the above 3 posts 1 is reserved for PWD-OH category]	<b>Regular Scale of Pay :</b> M.Sc (Chemistry) / B.Sc. Hons. in Chemistry with Physics and Maths as subsidiary subjects (Minimum - 55% marks in the Hons. / Principal subject). Candidates with M.Sc (Chemistry) must have done B.Sc. Hons. in Chemistry with Physics and Maths as subsidiary subjects with minimum 50% marks in the Hons/Principal subject during Graduation. <b>Trainees :</b> M.Sc (Chemistry) / B.Sc. Hons. in Chemistry with Physics and Maths as subsidiary subjects (Minimum - 60% marks in the Hons. / Principal subject). Candidates with M.Sc (Chemistry) must have done B.Sc. Hons. in Chemistry with Physics and Maths as subsidiary subjects with minimum 55% marks in the Hons/Principal subject during Graduation.	<b>Regular Scale of Pay :</b> Minimum one year experience in chemical/ process industry, Govt. or private laboratories/ research institutes/ college laboratory etc. Experience of handling sophisticated instruments like gas chromatograph, spectrophotometer will be desired. <b>Trainees :</b> No experience for Trainees.
5	Junior Engineering Assistant-IV (P&U)- Turbine / Trainee	7 [UR-4, SC-1 OBC-2]	<b>Regular Scale of Pay :</b> 3 years Diploma in Mechanical or Electrical Engineering with minimum 55% marks. <b>Trainees :</b> 3 years Diploma in Mechanical or Electrical Engineering with minimum 60% marks.	<b>Regular Scale of Pay :</b> One year apprenticeship experience in Boiler operations/ Turbine-cum-auxiliary plant operations in an industrial house under the Apprentices Act, 1961 or Two years work experience in Power & Utilities operation in a power plant having installed capacity of more than 20 MW. <b>Trainees :</b> No experience for Trainees.
6	Junior Control Room Operator-IV / Trainee and Junior Engineering Assistant-IV (Electrical) / Trainee	5 [UR-2, OBC -3]	<b>Regular Scale of Pay :</b> 3 years Diploma in Electrical Engineering with minimum 55% marks. <b>Trainees :</b> 3 years Diploma in Electrical Engineering with minimum 60% marks.	<b>Regular Scale of Pay :</b> Minimum one year experience in relevant area i.e. electrical maintenance / project jobs in chemical / process industry, power plants, Electricity Boards, manufacturing industries. <b>Trainees :</b> No experience for Trainees.
7	Junior Engineering Assistant-IV (P&U)-Boiler	2[SC-1, UR-1]	(i) B.Sc (Physics, Chemistry & Mathematics) and IInd Class Boiler Competency Certificate or (ii) Diploma in Mechanical or Electrical Engineering and IInd Class Boiler Competency Certificate.	Minimum one year post qualification experience in Power & Utility operations in a power plant having installed capacity of more than 20 MW.
8	Junior Materials Assistant-IV/ Trainee	1 (OBC-1) - Only PWD-HH category need apply.	<b>Regular Scale of Pay :</b> 3 years Diploma in Electrical / Mechanical Engineering with minimum 55 % marks. Working knowledge in Computer is required. <b>Trainees :</b> 3 years Diploma in Electrical / Mechanical Engineering with minimum 60% marks. Working knowledge in Computer is required	<b>Regular Scale of Pay :</b> Minimum one year experience in Purchase / commercial area of an industry/ Commercial organisation. <b>Trainees :</b> No experience for Trainees.
9	Junior Engineering Assistant-IV (Fire & Safety) / Trainee	2 (UR-1, SC-1)	Matric from a recognised Board + Sub Officer's course from NFSC Nagpur+ Valid Heavy Vehicle Driving Licence. Or Matric from a recognised Board + Six month (6 months) "Fireman's Course" from a recognised Institute + Valid Heavy Vehicle Driving Licence. <b>Physical standard:</b> The candidate should meet the following minimum physical standards as under: <b>Height :</b> Not less than 165 cms, <b>Weight :</b> Not less than 50 Kgs., <b>Chest :</b> Normal (unexpanded) 81 cms & Expanded 86 cms, <b>Vision :</b> 6/6 preferably without any aid.	<b>Regular Scale of Pay :</b> Minimum 1 year work experience in a Govt. / PSU / Industrial Fire Service. <b>Trainees :</b> No experience for Trainees.

**Note :** 1. Minimum qualifying marks for SC candidates relaxed to pass class. 2. OH candidates with deformity in lower limbs may apply for the post of Jr. Quality Control Analyst. 3. Candidates who have completed Apprenticeship training at Barauni Refinery and who possess the qualification of Diploma in Electronics and Communication shall also be considered for the post of Junior Engineering Assistant-IV (Instrumentation) / Trainee mentioned at Sr. No. 2 above.

**Age Limit (as on 31-07-2013):** (a) **Regular Scale of Pay :** Minimum 18 years and Maximum 26 years. Relaxation by 5 years for SC, 3 years for OBC candidates and for Ex-Servicemen as per rules, Age relaxation by 5 years for candidates domiciled in Jammu & Kashmir between 01-01-1980 and 31-12-1989. #Age relaxation by 10 years for UR, SC & ST candidates and 13 years for OBC candidates shall be allowed to Persons with Disabilities for post at Sr. No. 4, Post at Sr. No. 8 is reserved for OBC, accordingly PWD candidates (HH category) and belonging to OBC category shall be allowed age relaxation up to 13 years. (b) **Trainees: Minimum 18 years and Maximum 24 years** and other age relaxation as mentioned above & applicable to the respective category shall be allowed to candidates.

**General Instructions :** • The prescribed qualification should be as a regular student of a full time course from a recognised Indian University / Government recognised Institute. • Diploma in different trades is to be of 3 year duration. In case of institutes offering 2 year Diploma courses in the above mentioned trades, certification of equivalence (to 3 year course) from AICTE is essential, failing which the application is liable to be rejected. • Wherever Grades are awarded in the Diploma / Degree examination, its equivalent percentage of marks must be indicated in the application form as per the norms adopted by the University / Institute. • Identity of the Candidate should be certified by an Officer not below the rank of Tehsildar / Sub-Divisional Officer of the candidate's domicile place / native place, Principal / Head Master of the school / college from where the candidate has passed his 10th Standard, Intermediate or Graduation / Diploma along with name, designation and seal of office. Identity of the candidate should be attested by the authorities mentioned hereinabove in the format attached hereto. • Candidates shall be offered appointment in the regular scale of pay against above posts in the pay scale of ? 11900-32000/- (Other benefits like Medical / LTC/ Superannuation Benefit Fund etc. as per rules). The period of experience for the above posts shall be reckoned as on 28-02-2013. Experience must be post qualification. In the first phase, candidates with experience and who meet the eligibility criteria and qualify in the written test shall be called for the Personal Interview. • In case of non-availability of sufficient number of experienced candidates, management may consider engaging 'candidates with no / lesser experience' as Trainee subject to fulfilling the age criteria of maximum 24 years as on 31-07-2013, all other conditions prescribed for the post remaining unchanged. Such candidates shall be put under specific training for a minimum period upto 1 year, which may be extended or reduced and shall be placed on job after assessment of their learning. Candidates with lesser / no experience may accordingly choose to apply. Their candidature may accordingly be considered, if felt necessary. Decision of the management of Barauni Refinery shall be final and binding in this regard. • In the second phase, in case vacancies remain unfilled, such candidates without experience and who qualify in the written test shall be called for Personal interview for the post of Trainees. • Trainees shall be entitled to a monthly consolidated stipend @ ? 11,000/-. Other facilities shall be provided as per rules in this regard. • Upon successful completion of training and/or depending upon the operational requirement, the trainees will be absorbed in regular service of the Corporation in relevant posts in Salary grade - IV in the scale of pay of ?11900 - 32000/- • 1 year apprenticeship under Apprentices Act, 1961, in relevant area / discipline will be counted towards experience. Age relaxation equivalent to the period of Apprenticeship training undergone only in case of relevant area/industry/discipline shall also be given to Trade Apprentices. • Ex-Servicemen applying for the above vacancies must submit a certificate indicating the equivalence of their qualification to that advertised, failing which the application will be rejected, without further reference in this regard. • The selection methodology - Written test followed by Personal Interview of short listed candidates. Candidates will have to qualify each stage of selection process successfully for being adjudged suitable for subsequent selection event / final selection. • Female candidates can only apply for the posts of Junior Engineering Assistant-IV (Instrumentation) and Junior Materials Assistant-IV. However candidates applying for the post of Junior Materials Assistant should be a person with disability (HH) category. • Candidates can apply against any one post only. Candidates applying for more than one post will not be considered and such applications will be rejected. • Candidates having requisite qualification and fulfilling eligibility criteria should send neatly typed applications duly signed in the prescribed proforma on plain paper (A-4 size) with latest passport size photo (2 copies) along with photocopies of certificate pertaining to age & caste, mark sheets / certificates (of all the years/semesters of Graduation / Diploma), proof of experience duly attested by gazetted officer not below the rank of Tehsildar / Sub-Divisional Officer, Principal of the School, College from where the candidate has passed out. Name of the post should be superscribed on the right side of the envelope. • Candidates possessing professional qualification such as B.E or equivalent, MBA or equivalent / MCA shall not be considered for the above notified vacancies. • **Applications should be addressed to: Employee Relations Manager, Barauni Refinery, Indian Oil Corporation Limited, PO: Barauni Oil Refinery, Distt. Begusarai. Pin Code 851 114. • Last date of receipt of applications: 5.00 p.m. on 31-03-2013.** • A crossed DD of Rs. 100/- (one hundred only) as application fee (non-refundable) in favour of Accounts Officer, Indian Oil Corporation Ltd., Barauni Refinery payable at Begusarai. The crossed DD may be issued by any Branch other than SBI, BR Campus Branch. No other mode of payment shall be accepted. SC/ST/Ex-servicemen/PWD candidates are exempted from payment of application fee. • "Outstation" SC/ST/PWD candidates called for written test / interview will be reimbursed 2nd Class Railway / Bus fare from the place of residence to the place of interview / test and back by the shortest route subject to providing rail / bus ticket(s). • Reservation of posts for SC/ST/OBC (non creamy layer) / EXSM / PWD (where applicable) candidates and relaxations thereof shall be as per Govt. directives. • Candidates applying for posts at Sr. No. 4 & 8 reserved for Persons with Disabilities are required to submit a Certificate issued by a Medical Board constituted by the Central / State Government, failing which their candidature as PH candidates will not be considered. • Employees of Govt. / Semi-Govt./Autonomous Bodies must apply through proper channel or produce "No Objection Certificates" from their employers at the time of Personal Interview failing which they shall not be allowed to appear in the Personal Interview. • Incomplete applications, not supported by attested copies of relevant documents, not fulfilling the eligibility criteria or those received after the last date of receipt of applications shall not be considered and treated as "Rejected". • Canvassing of any kind shall disqualify the candidate. • For claiming the benefit of OBC category, the candidate should submit a latest caste certificate as per proforma prescribed by Govt. of India and issued by the competent authority, which would, among others, specifically mention that the candidate does not belong to the persons / sections (creamy layer) as mentioned in column 3 of the Schedule to the Department of Personnel and Training, Govt. of India OM No. 36012/22/93-Estt (SCT) dated 08.09.93. Being a Central Public Sector Undertaking, only those communities that are mentioned in the common list of OBC prepared by Central Govt. shall be treated as OBC for the purpose of reservation. • Barauni Refinery Management reserves the right to increase standard of qualification/criteria of minimum marks etc in order to restrict the number of candidates to a reasonable level. • Mere selection in written examination or interview or empanelment after the selection process shall not confer any right of appointment to the applicants. • A panel will be maintained in order to meet requirements in case candidates issued offers of appointment are not found "fit" in the pre-employment medical examination/ do not join or to fill up vacancies in addition to those advertised that are determined till the date of written test. Reservation requirements shall be met as per relevant guidelines in this regard. • The Corporation reserves the right to reject any application/candidate at any stage or cancel the conduct of interview/recruitment process without assigning any reason. No enquiry/correspondence shall be entertained in this regard. • In case it is detected at any stage of recruitment or thereafter, that a candidate does not fulfil the eligibility norms and/or that he/she has furnished any incorrect/doctored/false, information/certificate/documents or has suppressed any material fact(s), his/her candidature will stand cancelled. If any of these shortcomings is/are detected even after appointment, his/her services are liable to be terminated. • Appointment of selected candidates is subject to his/her being declared medically fit as per the requirement of the Corporation. • All such appointments will also be subject to all relevant Rules/policies/guidelines of the Corporation. • Any resultant dispute arising out of this advertisement shall be subject to the sole jurisdiction of the Courts situated at Begusarai • Decision of the Corporation in respect of all matters pertaining to this recruitment would be final and binding on all candidates.

**APPLICATION FORM**

Post Applied for : \_\_\_\_\_

1. Full Name : \_\_\_\_\_

2. Father's Name : \_\_\_\_\_

3. Permanent Address : \_\_\_\_\_

4. Address for Correspondence / Present Address : \_\_\_\_\_

5. Date of Birth : \_\_\_\_\_ 6. Sex : Male : \_\_\_\_\_ Female : \_\_\_\_\_

7. Religion : \_\_\_\_\_ 8. Nationality : \_\_\_\_\_

9. Domicile : \_\_\_\_\_ (State) \_\_\_\_\_ 10. Category: \_\_\_\_\_

S	ST	OBC	EXSM	PH
C				

11. Ex-Serviceman  
Date of Joining Service : \_\_\_\_\_  
Date of Discharge from Service : \_\_\_\_\_

12. E-mail id : \_\_\_\_\_

13. Telephone No. (With Std Code) : \_\_\_\_\_

14. Mobile No. (If any) : \_\_\_\_\_

15. Educational Qualification : \_\_\_\_\_

Qualification	Subjects		Percentage of marks	Year of Passing
	Principal	Subsidiary		

16. Experience :

Name of the organisation	Designation	Period		Duration.
		From	To	

17. If employed in Govt. Dept. / PSU, whether applied through proper channel : Yes / No.

18. DD No. \_\_\_\_\_ Date. \_\_\_\_\_ Name of Issuing Branch \_\_\_\_\_  
Branch Code No. \_\_\_\_\_

**Declaration :** I hereby declare that all statements made in the application are true, complete and correct to the best of my knowledge and belief. I also undertake that I have not submitted applications for two different posts advertised. The relevant clause is stated below for easy reference :- "Candidates can apply against any one post only. Candidates applying for more than one post will not be considered and such applications will be rejected." I understand that in the event of any information being found untrue / false / incorrect or I do not satisfy the eligibility criteria, my candidature / appointment will be cancelled / terminated, without assigning any reasons thereof. I have read the contents of the advertisement and agree to abide by the rules, regulations and procedures for appointment to the post applied for.

Date : \_\_\_\_\_  
Place : \_\_\_\_\_ (Signature of Applicant)

Affix recent passport size photograph

Identity should be certified by an officer as mentioned in the advertisement with designation / seal of office.

**IDENTITY CERTIFICATE**

This is to certify that the details and photograph of Shri \_\_\_\_\_ S/o. \_\_\_\_\_ and resident of (R/O) \_\_\_\_\_ who has applied for the post of \_\_\_\_\_ is verified and certified as correct and genuine.

**PERMANENT ADDRESS :** \_\_\_\_\_

**PRESENT ADDRESS :** \_\_\_\_\_

Signature of the Candidate : \_\_\_\_\_

Signature of the Certifying Officer : \_\_\_\_\_

Name of Certifying Officer : \_\_\_\_\_

Phone No. of Certifying Officer : \_\_\_\_\_

Designation : \_\_\_\_\_

(Seal of Office)

**[Note : Identity of the Candidate should be certified by an Officer not below the rank of Tehsildar / Sub-Divisional Officer of the candidate's domicile place / native place, Principal of the school / college from where the candidate has passed his 10<sup>th</sup> Standard, Intermediate or Graduation / Diploma along with name, designation and seal of office.]**

Affix photograph Seal of office & Signature of the officer attesting this certificate should appear on the Photograph.



**CENTRAL COUNCIL FOR RESEARCH IN SIDDHA**  
 Dept. of AYUSH, Ministry of Health & Family Welfare, Government of India  
 Anna Hospital Campus, Arumbakkam, Chennai - 600106  
 Ph: 044-26212421, Fax: 044-26211621, Email: ccrsadm2011@gmail.com

**Advertisement No. 1/2013**

The CCRS is a Central Autonomous Research Organization and Apex body in India with Headquarters at Chennai for formulation, co-ordination, development and promotion of research in Siddha. The Council carries out its activities and function through its network of 5 Institutes / Units located in Chennai, Puducherry, Trivandrum, Palayamkottai and Mettur. Applications are invited for the following positions on contract basis for CCRS Hqrs. Office and peripheral Institutes.

S.No	Name of the Post, No. of Posts	Essential Qualification & Age limit	Remuneration
1.	Senior Research Fellow - 5 i) Bio-statistics -1 ii) Library Information Science -1 iii) System Administration - 1 iv) Chemistry - 1 v) Botany - 1 Chennai / Anywhere in India	PG Degree in the relevant subject from a Recognised University.  <b>Desirable</b> : NET Qualified <b>Age Limit</b> : 30 Years	₹ 18,000/-PM+ applicable HRA
2.	<b>Consultants (Varmam Therapy) - 2</b> Chennai / Puducherry & Trivandrum	M.D. (Siddha) in Sirappu Maruthuvam from a Recognised University	₹ 26,000/-PM (Fixed)
3.	<b>Consultant (Administration) -1</b> Chennai	Retired in Under Secretary level with GP ₹ 6,600/-. Well experienced in Central Govt. Rules, Regulations / Establishment / Vigilance procedures, court cases etc. <b>Age Limit</b> : 65 Years	₹ 30,000/-PM (Fixed)
4.	<b>Consultant (Accounts) -1</b> Chennai	Qualified Chartered Accountant	₹ 25,000/-PM (Fixed)
5.	<b>Senior Office Assistant - 1</b> Chennai	Retired as Admn. Officer /Section Officer in the Grade pay of ₹ 5,400 / ₹ 4,800 from Central Govt / Autonomous Organisation or PG in Commerce with One year Diploma in computer applications and 5 years experience in accounts/ admn. in contractual post with any Govt. / Reputed Orgn. <b>Age Limit</b> : 65 years (Retired persons)35 years for others	₹19,000/-PM (Fixed)
6.	<b>Office Assistant - 2</b> Chennai	Retired as Office Supt./ Assistant in the Grade Pay of ₹ 4,200/- (Minimum) with 2 years experience or PG/UG in commerce/ Science with one year Diploma in Computer Applications and 5 years experience in accounts / admn. in a contractual post with any Central Government. / reputed Organisation. <b>Age Limit</b> :65 years (Retired persons) 35 years for others	₹16,000/-PM (Fixed)

**GENERAL CONDITIONS:**

- Initially the period of engagement of the above positions is for one year.
- Age will be determined as on 01.01.2013.
- Candidates who fulfil requisite eligibility criteria only will be called for the preliminary written test (only for SRFs & for others if large in number) followed by interview.
- The above contractual engagement is liable to transfer any where in India.
- Applicant should submit all original certificates for verification along with 2 recent passport size photographs at the time of written test/interview.
- No TA/DA will be paid for attending written exam and interview.
- Duly filled-in application form in prescribed format (download from website <http://crisiddha.tn.nic.in/>) along with attested copies of relevant certificates should be sent to Director General, Central Council for Research in Siddha, Anna Hospital Campus, Arumbakkam, Chennai - 106
- Last date for receiving of filled-in-application: 01.04.2013 before 5:00 P.M**
- Director General, CCRS reserves the right to cancel the recruitment of all/any of the posts without assigning any reason thereof.

**Director General, CCRS**

EN 50/86

**SVP National Police Academy**

The SVP National Police Academy invites applications for filling up 6 vacant posts of Stenographer Grade-1 on deputation basis in the pay band-2 (9300-34800) with Grade pay Rs.4200/- and other allowances admissible as per Central Govt. rules. Officers holding analogous post on regular basis in the parent cadre or department OR Stenographers with ten years regular service of in the Pay Band-1 (5200-20200) with Grade Pay of Rs.2400/- or equivalent are eligible for applying to the post. Period of deputation including period of deputation in another ex-cadre post held immediately preceding this appointment in the same or other organization or department of the Central Government shall ordinarily not exceed 3 years. The official should be governed by the standards terms of deputation stipulated in O.M. No.2/29/91-Estt(P.II) dated 05.01.1994 of Department of Personnel & Administrative Reforms, New Delhi as amended from time to time. The bio-data alongwith ACR gradings for last five years and disc/vig clearance certificate may be sent through proper channel, to The Deputy Director(Estt), SVP National Police Academy, Hyderabad - 500052 so as to reach **within two months** from the date of advertisement. For more details please visit our website [www.svpnpa.gov.in](http://www.svpnpa.gov.in).

**EN 50/28**

**DISCLAIMER**

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**STAFF SELECTION COMMISSION**

**P&P-II Section**

**NOTE**

Candidates may refer to the Notice of Sub Inspector(Executive) Male/Female in Delhi Police Examination 2012 published in the Employment News dated **09-06-2012**. Due to administrative reasons, it has been decided in consultation with Ministry of Home Affairs and Delhi Police to cancel the medical examinations of the candidates conducted by regional offices of the Commission for recruitment of Sub Inspector(Executive) Male/Female in Delhi Police Examination, 2012. After finalisation of the list of candidates selected on the basis of performance in written examination and interview, Delhi Police will conduct medical examination afresh for the selected candidates, as provided in the approved scheme, before offering appointment.

**US(P&P-II)**  
**EN 50/95**

**davp 32204/11/0103/1213**

**Sainik School Balachadi Jamnagar (Gujarat)**

**English Medium Residential School, CBSE Recognized (Under Ministry of Defence)**

**VACANT POST**

No. of post	No. of Vac.	Eligibility
Nursing Assistant (Regular Basis)	01 (One)	<b>Essential Qualification</b> i) Nursing Diploma/ Degree. ii) 5 years experience or Ex- Serviceman of Medical Assistant trade with at least 5 years service after training. <b>Desirable:</b> Proficiency in games and sports, interest in other extra curricular activities, computer and aptitude for residential school life style. Ex- Servicemen will be given preference. <b>Pay Scale</b> 5200 - 20200 + GP 2400 <b>Age</b> Between 18-50 years as on 01 Apr 2013

Visit School website [www.ssbalachadi.org](http://www.ssbalachadi.org) for application form and other details:

**EN 50/90**

**Institute for Social and Economic Change**

Dr. V.K.R.V. Rao Road, Nagarabhavi, Bangalore 560 072

Applications are invited for the post of Associate Professor

Cadre	No. of Posts	Category	Centre
Associate Professor	One	SC Backlog	ADRT Centre

The last date for receiving applications with reference to the above advertisement is **April 04, 2013**. Detailed advertisement and the prescribed application form can be downloaded from [www.isec.ac.in](http://www.isec.ac.in).

**NOTE:** Candidates who have already applied with reference to Advt. No. A/5/2012 dated 18/06/2012, 30/07/2012 and 24/08/2012 need not apply

**EN 50/91**  
**Registrar**

**RAILWAY RECRUITMENT BOARD, PATNA MAHENDRUGHAT, PATNA-4**

**Dated - 28.02.2013**

**WRITTEN EXAMINATION RESULT**

As a result of written examination held on 22.04.2012 for the various posts notified under Centralised Employment Notice No. 05/2010 and 07/2010 as detailed below, candidates bearing the following Roll Nos. have been found eligible for Verification of Original Certificates as well as their identity. They are requested to report RRB, Mahendrughat, Patna for Verification of Original Certificates on date and time mentioned below. Intimation letters for Verification are being despatched to the candidates individually. The result is provisional subject to verification of original certificates and fulfilling the conditions laid down in the Employment Notice in respect of eligibility for the post. The Roll Numbers of the candidates have been arranged horizontally in ascending order.

**Date of Verification :- 18.03.2013, Time:-10:00 hrs.**

**Centralised Employment Notice No. 05/2010**

**I. Post:- Section Engineer (Chemical), Category No. 07.**  
26105071000098 (One candidate)

**II. Post:- Junior Engineer Gr.II (Metallurgical), Category No. 69.**  
26105691000117 26105691000161 26105692000089 26105694000020 26105694000066 (Five candidates)

**III. Post:- Junior Engineer Gr.II (Chemical), Category No. 70.**  
26105701000046 (One candidate)

**Centralised Employment Notice No. 07/2010**

**I. Post:- Chemical and Metallurgical Assistant Gr.I, Category No. 04.**  
26107041000036 26107041000137 26107042000004 26107042000024 26107043000017 26107044000020 26107044000107 26107044000117 26107044000147 26107044000173 (Ten candidates)

**II. Post:- Junior Chemical and Metallurgical Assistant, Category No. 05.**  
26107051000234 26107051000347 26107051000457 26107051000557 26107051000620 26107051000648 26107052000004 26107052000095 26107053000006 26107054000020 26107054000347 26107054000513 (Twelve candidates)

**WAITLISTED CANDIDATES**

**Date of Verification :- 18.03.2013, Time:-14:00 hrs.**

**Centralised Employment Notice No. 05/2010**

**I. Post:- Section Engineer (Chemical), Category No. 07.**  
26105071000113 (One candidate)

**II. Post:- Junior Engineer Gr.II (Metallurgical), Category No. 69.**  
26105694000033 (One candidate)

**III. Post:- Junior Engineer Gr.II (Chemical), Category No. 70.**  
26105701000015 (One candidate)

**Centralised Employment Notice No. 07/2010**

**I. Post:- Chemical and Metallurgical Assistant Gr.I, Category No. 04.**  
26107042000020 26107043000032 26107044000181 26107044000200 (Four candidates)

**II. Post:- Junior Chemical and Metallurgical Assistant, Category No. 05.**  
26107052000146 26107054000022 26107054000241 26107054000343 (Four candidate)

In order to take care of the shortfall in the formation of the original panel, the number of candidates being called for document verification is 30% more than the actual number of vacancies (wherever such number of candidates are available). It is also made clear that merely calling a candidate for document verification does not in any way, entitle him/her for final empanelment/appointment on the Railways. The candidature of all the above mentioned candidates are purely provisional and subject to their fulfilling the eligibility criteria in all respects. In case, any of the candidate, who does not receive individual intimation letter for Verification, he/she may come for original document verification on the date fixed above along with the counter foil of the admit card of written examination conducted on 22.04.2012. While every care has been taken in preparing the above results, Railway Recruitment Board, Patna will not be responsible for any typographical error and reserves the right to rectify the errors and omissions, if any. RRB/Patna regrets inability to entertain any correspondence from unsuccessful candidates. This result is also available at our web site [www.rrbpatna.gov.in](http://www.rrbpatna.gov.in).

**CHAIRMAN**

EN 50/50

**BIDHAN CHANDRA KRISHI VISWAVIDYALAYA**

Applications are invited for engagement on purely temporary basis of 2 (two) S.R.F. & 1 (one) Computer Specialist for the ad-hoc project entitled "The response of the hydrological system in India to climate change (INDICE)" an Indo-Norway research project sponsored by Norwegian Water Resources & Energy Directorate under Dr. Lalu Das, Principal Investigator of the project & Associate Professor & Head, Deptt. of Agricultural Meteorology & Physics, Faculty of Agricultura, BCKV, P.O. Krishi Viswavidyalaya-741252, Mohanpur, Nadia. for a period 3 (three) Years or the actual date of termination of the project whichever is earlier with a value of fellowship @ Rs. 22,000/- p.m. (fixed) for SRF & Computer Specialist with the following qualification for: **Sr. Research. Fellow:** Master's Degree in Agricultura Meteorology/Meteorology/Atmospheric Science/Environmental Science/Physics/Agricultural Physics/Geography with Climatology or Meteorology as special paper securing at least 55% marks or above in aggregate OGPA 2.75 in 4.00 or OGPA 6.50 in 10.00 scale followed by a good bachelors degree with knowledge in meteorological data handling/ Computer programming in FORTRAN or C. Preference will be given to the B.Sc.(Agricultural) Hons. Candidates; for **Computer Specialist:** Master's Degree in Computer Science/Information Technology/Computer Applications (MCA) with experience i) Hands-on experience in Unix/Linux environment, or skill of programming/Scripts in Grads/ R/IDL/MATLAB, ii) Handling knowledge of large volume of global meteorological/station data or other related data. Application in plain paper along with complete bio-data stating a) Name, b) Father's Name, c) Date of Birth, d) Presnt & Parmanent Address, e) Academic Qualifications, f) Research Experiences (if any), g) Phone Number (Mobile) and e-mail ID along with attested photocopies of mark-sheets and testimonials with a Passport size recent colour photograph (to be pasted on the top right side of the Bio-data) should reach to Principal Investigator of the project positively within 25.03.2013.

**Registrar**  
**EN 50/85**

# Cabinet Secretariat

**Closing Date: 17.04.2013**

**Applications are invited for the following posts in Cabinet Secretariat, Government of India**

Co- de	Post & Vacancy (Vacancy may undergo change)	Pay	Age as on 1.1.2013	Educational Qualification
A	<b>RESEARCH OFFICER (ECONOMICS) Group 'B' Non- Gazetted</b>	<b>PB-2</b> Rs.9300-34,800 <b>Grade pay</b> Rs. 4800/- The post also carries a special allowance of 15% of basic pay per month.	Not exceeding 30 Years (Candidates should be born not before 02.01.1983)	Honours degree or Post Graduation degree in Economics or Commerce from a recognised University or Institution.
B	<b>DEPUTY FIELD OFFICER(TELE) Group 'B' Non- Gazetted</b>	<b>PB-2</b> Rs.9300-34,800 <b>Grade pay</b> Rs. 4200/- The post also carries a special allowance of 15% of basic pay per month.	Not exceeding 30 Years (Candidates should be born not before 02.01.1983)	Degree in Science from recognized University/ Institution with Physics and Mathematics (studied for all the three years) or B.Sc (Hons) in Physics (with Mathematics for the first two years) from a recognized University/ Institution <b>or</b> Diploma (03 Years duration) in Telecommunications or Radio Engineering or Electronics or Electronics and Telecommunication <b>or</b> Bachelor in Computer Science or Computer Applications or equivalent Diploma of a recognized institution <b>or</b> Certificate of proficiency class-II (Radio Electronics) examination conducted by The Ministry of Communications.
C	<b>DEPUTY FIELD OFFICER (GD) Group 'B' Non- Gazetted</b>	<b>PB-2</b> Rs.9300-34,800 <b>Grade pay</b> Rs. 4200/- The post also carries a special allowance of 15% of basic pay per month.	Not exceeding 30 Years (Candidates should be born not before 02.01.1983)	Bachelor's degree from a Recognized University/ Institution.
D	<b>PERSONAL ASSISTANT Group 'B' Non- Gazetted</b>	<b>PB-2</b> Rs.9300-34,800 <b>Grade pay</b> Rs. 4600/- The post also carries a special allowance of 15% of basic pay per month.	Not exceeding 30 Years (Candidates should be born not before 02.01.1983)	i) Bachelor's Degree from a recognized Institution or University. ii) Skill Test Norms. Dictation: 10 minutes @ 100 w.p.m. Transcription: 45 minutes (English), 60 minutes (Hindi) (on computer only)
E	<b>STENOGRAPHER Group 'C' Non- Gazetted</b>	<b>PB- 1</b> Rs. 5200-20200/- <b>Grade Pay</b> Rs. 2400/- The post also carries a special allowance of 15% of basic pay per month.	18-27 Years (Candidates should be born not before 02.01.1986 & not later than 01.01.1995)	i) 12th Class pass from a recognized Board or University. ii) Skill Test Norms. Dictation: 10 minutes @ 80 w.p.m. Transcription: 50 minutes (English), 65 minutes (Hindi) (on computer only)

**Note-I. Only Indian nationals are eligible to apply for the above posts.**

**Note-II. Women candidates may note that for the post DFO (T) (code B) & DFO (GD) (code C) the job involves postings at arduous locations in field with all India transfer liability.**

**Note-III. The upper age limit is relaxable for the following categories of candidates:-**

a) SC/ST candidates by 5 years and OBC candidates by 3 years. Certificate to be submitted in the prescribed format as stipulated in the notice as and when required.

b) Central Government Employees working on posts in same line/allied cadre will be considered for age relaxation upto 5 years in upper age limit for group 'B' posts at Sl. No. 1,2 & 3. For Group 'C' post at Sl. No. 4, Central Government Employees working on posts in same line/allied cadre will be considered for age relaxation upto the age of 40 years provided they have rendered a minimum of 3 years continuous service in the Government of India offices/ departments as on cut-off date i.e. 01.01.2013 and continue to be in such service till their appointment in the Cabinet Secretariat.

c) Candidates of Jammu & Kashmir who have ordinarily been domiciled in the state of Jammu & Kashmir during the period from 1.1.1980 to the 31.12.1989 will be eligible for grant of age relaxation in the upper age limit up to a maximum of 5 years.

d) Ex-servicemen candidates applying for Group 'B' and Group 'C' posts will be eligible for relaxation upto 3 years after deduction of the military service rendered from the actual age as on the cut off date.

**Note-IV. Candidate should possess the prescribed educational qualification and age as on 1-1-2013.**

**Note-V. Only online applications (Annexure-I) will be accepted in website [www.ssc-online2.gov.in](http://www.ssc-online2.gov.in). In view of the huge number of applicants, scrutiny of the eligibility category etc. will not be undertaken at the time of Tier-I and Tier-II examination. Therefore, the application will be accepted provisionally only. The candidates are advised to go through the requirements of educational qualification, age, etc. and satisfy themselves that they are eligible, before applying and before indicating their preference for any particular post. Copies of supporting documents will be sought, only from those candidates who appear in tier-II examination, at the time of interview/ skill test/ document verification. Candidature will be cancelled if any information or claim is not found substantiated when the scrutiny of documents is undertaken after Tier-II of the Examination. The Department's decision will be final in this regard.**

**Note-VI.** Candidates submitting their application online should pay a fee of Rs. 100/- (One hundred only) through State Bank of India challan or online account with SBI. Challan form will be generated online (please see 'Annexure -II' for filling online application). **All Women candidates and candidates belonging to Scheduled Caste and Scheduled Tribe are exempted from paying application fee, as per extant government orders.**

**Note-VII. Fee once paid will not be refunded under any circumstance.**

**Note-VIII.** Fee paid by modes other than SBI will not be considered and the applications of such candidates will be rejected outright and payment made shall stand forfeited.

**Note-IX.** Candidates are advised to furnish correct information regarding their age, educational qualification and Caste/Category (i.e. SC/ST/OBC) in the application forms.

**Note-X.** No change of Centre of Examination will be allowed under any circumstance. Hence, the candidates should select the centres **carefully** and **indicate the same correctly** in their applications. Any centre may be cancelled and candidates diverted to other centres.

**Note-XI. SCHEME OF EXAMINATION:**

The Examination will be conducted as indicated below:

**RO (ECO), DFO (T) and DFO (GD) :** Prelims, Mains and Interview. (Three Tier)

(Common Preliminary Test for all the three posts)

**PA and Stenographer :** Prelims, Skill Test & Interview. (Three Tier)

(Common Preliminary Test for both the posts)

Post	Tier - I (Objective Multiple Choice)	Tier - II (Descriptive)	Tier - III (Interview)
<b>RO (ECO)</b>	Questions on: General English (50 marks) General Studies (50 marks) General Intelligence/ Reasoning Ability (50 marks) Numerical Aptitude (50 marks) <b>Total Marks: 200</b> <b>Duration: 2 Hours</b>	Paper on Economic Theory and Important Economic Developments in the International Arena and Statistics. <b>Total Marks: 300</b> <b>Duration: 3 Hours</b>	<b>60 Marks</b>
<b>DFO (T)</b>	Questions on: General English (50 marks) General Studies (50 marks) General Intelligence/ Reasoning Ability (50 marks) Numerical Aptitude(50 marks) <b>Total Marks: 200</b> <b>Duration: 2 Hours</b>	<b>Paper-I (Conventional Type)</b> General English (50 Marks) General Awareness (50 Marks) <b>Total Marks: 100</b> <b>Duration: 2 Hours</b> <b>Paper-II (Conventional Type)</b> Section - I Sub section a) Physics (Degree level) Sub Section b) Mathematics (Degree Level) Section - II Electronics/ Telecommunications/Radio Engineering (03 year Diploma level) Section - III Computer Science/Computer Applications (03 year Diploma level) <b>Total Marks: 200</b> <b>Duration: 2 Hours</b> <b>Note:</b> The candidates have the choice to answer any one of the 3 sections of Paper II. Those candidates who opt for section 1 may be required to answer at least 2 questions each from Sub sections a) and b)	<b>60 Marks</b>
<b>DFO (GD)</b>	<b>Questions on:</b> General English (50 marks) General Studies (50 marks) General Intelligence/ Reasoning Ability (50 marks) Numerical Aptitude (50 marks) <b>Total Marks: 200</b> <b>Duration: 2 Hours</b>	<b>Paper-I</b> <b>English language including communication skills comprising of:</b> English Essay (70 Marks) Précis (30 Marks) Letter Writing (30 Marks) Comprehension passage (30 Marks) Grammar (40 Marks). Total Marks: 200 Duration: 3 Hours <b>Paper-II</b> Quantative Abilities (50 Marks), General Awareness (50 Marks) <b>Total Marks: 100</b> <b>Duration: 2 Hours</b>	<b>60 Marks</b>
Post	Tier - I	Tier - II	Tier - III (Interview)
<b>Personal Assistant</b>	<b>Paper- I (Objective Multiple Choice)</b> General English General Knowledge <b>Total Marks: 200</b> <b>Duration: 2 Hours</b> <b>Paper- II (Descriptive type)</b> English Essay <b>Total Marks: 100</b> <b>Duration: 1 Hour</b>	Skill Test (300 Marks) <b>Skill Test Norms</b> <b>Dictation: 10 minutes @ 100 w.p.m.</b> <b>Transcription: 45 minutes (English), 60 minutes (Hindi) (on computer only)</b>	<b>60 Marks</b>
<b>Steno-grapher</b>	<b>Paper- I</b> General English General Knowledge <b>Total Marks: 200</b> <b>Duration: 2 Hours</b> <b>Paper- II (Descriptive type)</b> English Essay <b>Total Marks: 100</b> <b>Duration: 1 Hour</b>	<b>Skill Test (300 Marks)</b> <b>Skill Test Norms</b> <b>Dictation: 10 minutes @ 80 w.p.m.</b> <b>Transcription: 50 minutes (English), 65 minutes (Hindi) (on computer only)</b>	<b>60 Marks</b>

**Note-XII** The medium of examination will be English.

**Note-XIII Mode of selection:** 3 tier process → Candidates qualifying in tier 1 will be called for tier 2 and those qualifying in tier 2 will be called for tier 3 i.e. interview. Select panel to be derived on the combined score of tier 2 (Mains) and tier 3 (Interview). Tier 1 examination will be qualifying examination. In case of tie between 2 or more candidates, the merit list will be prepared on the basis of date of birth i.e. older candidate will be placed above the younger one.

Continued on page 21

Continued from page 20

**Note-XIV.** The preliminary exam will be conducted on 17.06.2013 for all posts as below:

Post Codes A, B & C :	Forenoon	10.00 AM to 12.00 Noon	17.06.2013
Post Codes D & E :	Afternoon	Paper - I (2.00 PM to 4.00 PM) Paper- II (4.00 PM to 5.00 PM)	17.06.2013

**Note-XV.** Persons, who are already in government service, should be in possession of NOC from respective office/ Department, when they appear for Preliminary Examination.**Note-XVI.** The organisation will not be responsible for late / no receipt of call letters for Preliminary/ Main examination / interview, due to delay in postal channel.**Note-XVII.** **MOBILE PHONE AND OTHER ELECTRONIC GADGETS ARE BANNED WITHIN THE PREMISES OF THE EXAMINATION CENTRES. POSSESSION OF SUCH EQUIPMENT WHETHER IN USE OR IN SWITCH OFF MODE, DURING THE EXAMINATION WILL BE CONSIDERED AS USE OF UNFAIR MEANS. CANDIDATURE OF SUCH CANDIDATES WILL BE CANCELLED. THEY WILL BE LIABLE FOR FURTHER ACTION AS MAY BE DECIDED BY THE COMMISSION.****Note-XVIII.** **The employment carries with it the All India transfer liability.****Note-XIX.** Only selected candidates would be informed of their selection in due course after the selection process and no correspondence on the subject would be entertained.**Note-XX.** The last date of receipt of application is **17.04.2013**. Applications received after the last date shall not be entertained.**Note-XXI.** If a candidate applies for more than one post, he will be eligible to be considered for only one post as per his order of preference.**ANNEXURE - I****RECRUITMENT FOR CABINET SECRETARIAT-2013****Please read instructions in the Notice of the Examination/ Annexure-II carefully.**

- Name of the Examination Centre  2. Centre Code
- Candidate's Full Name (in English), Write in Capital Letters exactly as in Matriculation Certificate. Leave a box blank between any two parts of the name.
- Father's Name (Write in Capital Letters in English)
- Mother's Name (Write in Capital Letters in English)

- |   |   |   |  |
|---|---|---|--|
| 6. Date of Birth<br><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Day Month Year | 7. Gender <input type="checkbox"/><br>(Write 1-Female & 2-Male) | 8. Nationality <input type="checkbox"/><br>(Write 1-Indian)<br><b>Only Indian Nationals need to apply</b> | 9. Fee <input type="checkbox"/><br>(Write 1-Fee paid & 2- Exemption claimed) |
|---|---|---|--|

- |  |  |  |   |
|--|--|--|---|
| 10. Category <input type="checkbox"/><br>(Write 09-General, 01-SC, 02-ST, 03-Ex-Serviceman, 06-OBC, 12-CGE (Group 'B'), 15-CGE (Group 'C' & 21-Kashmiri Migrant) | 11. If Ex-Serviceman, Write 3 <input type="checkbox"/><br>in box<br>11.1 Length of service <input type="checkbox"/> <input type="checkbox"/> (Year)<br>Date of Discharge <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Day Month Year | 12. Whether seeking age relaxation (Write 1-Yes, 2-No) <input type="checkbox"/> <input type="checkbox"/> | 13. If Yes, indicate code <input type="checkbox"/> <input type="checkbox"/> |
|--|--|--|---|

- |   |   |  |
|---|---|--|
| 14. Age as on (01.01.2013)<br><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Day Month Year | 15. Preference for Posts (Indicate Code)<br>1 2 3 4 5<br><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br><b>Preference once exercised shall be final.</b> | Codes<br>A : Research Officer (Eco)<br>B : Deputy Field Officer (Tele)<br>C:Deputy Field Officer (GD)<br>D: Personal Assistant<br>E : Stenographer |
|---|---|--|

- |  |  |
|--|--|
| 16. Educational Qualification (Indicate code)<br><input type="checkbox"/> <input type="checkbox"/><br><input type="checkbox"/> <input type="checkbox"/><br><input type="checkbox"/> <input type="checkbox"/> | 17. Percentage (%) of Marks<br><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
|--|--|

**18. Details of work experience/ Govt. Service rendered**

Name of the Organisation (s)	Designation	Nature of the Duty (ies)	Period of Service	
			From	To

- |  |   |                                   |
|--|---|-----------------------------------|
| <b>19. Address: Write your complete Communication Address including your Name in English Capital Letters or Hindi with Blue or Black Ball Pen.</b><br>Name _____<br>Address _____<br>_____ | <b>20. Photograph</b><br>Paste here firmly your recent photograph (4 c.m. x 5 c.m.) | Roll Number (for office use only) |
|  |   |                                   |

- PIN :
- Mobile No. : \_\_\_\_\_
- Email ID : \_\_\_\_\_

**Annexure-II****Procedure for Online Submission of Application**

- On-line application facility will be available from
- Online submission of the application may be made at website **www.ssconline2.gov.in**. Instructions are available at the site. Candidate should read the instructions carefully before making any entry or selecting options. Candidate should supply all the required details while filling up the online form. Mandatory fields are marked with \* (asterisk) sign. The filling of online application contains two parts :-

Part I Registration  
Part II Registration

- In Part I registration, candidate will have to fill basic information. On submission of details, can-

didate will be prompted to check the details and make any correction in the application.

4. Candidate may press "I agree" button after declaration once he/ she finds that information supplied by him/ her is in order and no correction is required. Thereafter no correction/ modification etc. will be allowed.

5. A page with Registration No. will now be generated. Note down the registration number or take out the printout of the page. Candidates using sifyitest site will also get a SMS containing Registration Number. The application procedure is incomplete without part II registration. Part II registration requires filling of payment details, uploading of photograph and scanned signature. Candidates may note that the Registration number given by the Commission and Transaction ID of the Bank should be properly entered in the relevant space, failing which it will not be possible to link the payment with part I registration. On-line application will be complete only if scanned signature and photo are uploaded as per instructions. Incomplete online application will be rejected summarily.

6. Candidates who have to pay application fee can pay fee online through SBI net banking, or cash through SBI bank challan.

7. To pay fee in cash, candidate should take print out of challan generated online after completion of part I registration. Deposit the requisite fee in pay branch of State Bank of India and then continue with the part II registration.

8. Those who want to pay online through SBI net banking, can go directly to part II registration after completion of part I. Candidate will have to supply registration number and date of birth to continue to part II registration.

9. Then upload a recently taken scanned photograph in 8 - bit JPG format. The digital size of the file must be of resolution 100 pixel width by 120 pixels height.

10. Then upload your scanned signature in 8 - bit JPG format. The digital size of the file must be of resolution 140 pixel width by b60 pixels height.

11. Emails will be received by the candidates registering only. Copy of email may be retained to produce before the Regional Office in the event of any discrepancy.

**12. Candidates are advised to go through the instructions carefully before filling up the application form.**13. Request for change/ correction in any particulars in the Application Form shall not be entertained under any circumstances. **The Department will not be responsible for any consequences arising out of non acceptance of any correction/ addition/ deletion in any particular filled in application form whatever the reasons may be.**

14. Copy of challan through which fee is paid or details of online payment must be retained and produced on demand.

**Essential Educational Qualification Code**

Educational Qualification	Code
Matriculation	35
Diploma (3 Years)	04
BA	05
B. Com.	07
B.Sc.	09
BE	13
B. Tech	14
AMIE (Part A & Part B)	15
B.Sc. (Engg.)	16
BCA	17
Certificate of Proficiency Class-II Examination conducted by Ministry	36
Others	37

**Subject Code for Educational Qualification**

Subject of Educational Qualification	Code
History	01
Political Science	02
Economics	03
English Literature	04
Hindi Literature	05
Geography	06
Commerce	07
Physics	09
Mathematics	11
Statistics	12
Electronics	19
Electronics & Tele Communication Engineering	21
Computer Science	24
Computer Application	25
Radio Engineering	26
Physics + Mathematics	27
Others	28

**Examination Centre and Centre Code**

Area Covered	Examination Centre	Centre Code
U.P., Bihar	Lucknow	3010
West Bengal, Orissa, Jharkhand, Sikkim and Andaman & Nikobar	Kolkata	4410
Karnataka, Kerala and Lakshadweep	Bangalore	9001
Himachal Pradesh, Haryana, Uttarakhand, Madhya Pradesh and Rajasthan, Chhattisgarh and Delhi	Delhi	2201
All North Eastern States	Guwahati (Dispur)	5105
Tamil Nadu, Andhra Pradesh and Pondicherry	Chennai	8201
Maharashtra, Gujarat, Goa, Diu & Daman and Dadra & Nagar Haveli	Mumbai	7204
Jammu & Kashmir, Punjab and Chandigarh	Jammu	1004

**davp 58101/11/0073/1213****EN 50/82****NACWC****National Authority Chemical Weapons Convention  
Cabinet Secretariat, Government of India**

NACWC is the nodal agency for implementing Chemical Weapons Convention and focal point for Organization for Prohibition of Chemical Weapons Convention (OPCW).

Currently we are looking for suitably qualified candidates with academic and professional background in chemistry for the following positions:

- One post of Adviser (Rs. 37400-67000, Rs. 8900 (GP))
- One post of Deputy Director (Rs. 15600 - 39100, Rs. 6600 (GP))
- Two posts of Technical Officers (Rs. 9300-34800, Rs. 4800 (GP))

Employees from the following organizations are eligible to apply: Central / State Governments, Union Territories Administration (including their attached and subordinate offices), Universities, Recognised

Research Institutions, Public Sector Undertakings (PSUs), Semi-Government, Autonomous, and Statutory Organisations.

Selected candidates will be entitled to a deputation allowance where applicable. These positions require domestic as well as foreign travel. Please visit our web-site at **www.nacwc.nic.in** for application form and further details.

Interested candidates should send duly completed application form **within 60 days** from the date of publication in the Employment News and any related enquiries to the following address:

R. K. Panigrahi, Deputy Director

National Authority Chemical Weapons Convention (NACWC)

1st Floor, Chanakya Bhawan, Chanakyapuri, New Delhi - 110021

Phone: 011-24675691, Fax: 011-24675767

A scanned copy of the application and enquires should also be sent to the following email: **nacwc@nic.in**

**davp 58101/11/0075/1213****EN 50/98****UNIVERSITY OF RAJASTHAN, JAIPUR**No. Estt./2013/ **NOTIFICATION**

The date of submission of documents, to be attached with the application forms for the post of Associate Professor and Professor who have already submitted their Application-Form by 15<sup>th</sup> February 2013 is extended upto 30<sup>th</sup> April 2013. It is clarified that this extension of date for submitting document is not applicable for the post of Assistant Professor.

**Registrar****EN 50/36**



# BECOME A JUNIOR COMMISSIONED OFFICER IN THE ARMY AS RELIGIOUS TEACHER

1. Applications are invited from candidates for recruitment of Religious Teachers in the Army as **Junior Commissioned Officer for RRT 72 & 73 course**. Religious Teachers preach religious scriptures to troops and conduct various rituals at Regimental/Unit religious institutions. Their duties include attending funerals, ministering to the sick in hospitals, reading prayers with the convalescents, visiting soldiers undergoing sentence, giving special religious instructions to children and enlisted boys besides attending generally to the religious instructions and welfare of Officers, Soldiers and their families.

### 2. ELIGIBILITY.

(a) **Age** : Must not be below 27 years or over 34 years for civilian candidates and between 25 years to 34 years for remustered candidates **as on first day of Recruitment Rally**. Candidates are requested to contact nearest Recruiting office/Zone given in Para 6 of this advertisement for date of Recruitment Rally. For more details please visit our website [www.joinindianarmy.nic.in](http://www.joinindianarmy.nic.in).

(b) **Educational & Language Qualifications**: The Minimum educational qualifications applicable to candidates applying for post is as under :-

#### Pandit :

- (i) Candidates with minimum educational qualification of graduation in any discipline from a recognized university.
- (ii) In addition candidate must also be qualified Madhyama in Sanskrit or Bhushan in Hindi or equivalent standard in the regional language concerned.
- (iii) Those who have passed BA with Sanskrit / Hindi as one of the elective(Main) subjects but have not done Madhyama in Sanskrit or Bhushan in Hindi are also eligible.

**Note** : For Indian domicile Gorkha candidates applying for the post of Pandit the minimum educational qualification for appointment will be same as 2 (b) above. For Nepalese domicile Gorkha candidates applying for the post of Pandit the minimum educational qualification for appointment will be as under:-

- (i) BA with Sanskrit/Hindi as one of the elective (main) subjects (Madhyama in Sanskrit or Bhushan in Hindi not mandatory)
- (ii) Graduation/Post Graduation in Sanskrit from any recognized university of India/Nepal.
- (iii) Graduation in any discipline from a recognised university with Madhyama in Sanskrit or Bhushan in Hindi or equivalent standard in the regional language concerned.

**Maulvi** : Candidates with the minimum educational qualification of graduation in any discipline from a recognized university. In addition candidate must also be qualified as Maulvi Alim in Arabic / Adib Alim in Urdu or equivalent standard. Those who have passed BA with Arabic / Urdu as one of the elective (Main) subject but have not done Maulvi Alim in Arabic / Adib Alim in Urdu are also eligible.

**Padre** : Candidates with the minimum educational qualification of graduation from a recognized university. In addition candidates should have been ordained priest by the appropriate ecclesiastical authority and is still on the approved list of the local Bishop.

**Note** : For candidates applying for remustering the minimum qualification will be 10+2.

(c) **Culture**: Candidates should belong to the culture of the appropriate religious denomination and religious qualification acceptable to the troops.

(d) **Medical Standard**: A candidate should have robust physique and mental health, chest should be well developed having minimum 5 cm. expansion, should have normal hearing with each ear. Should have sufficient number of natural teeth i.e. 14 dental points with healthy gums. Should not have diseases like deformity of bones, hydrocele, varicose veins or piles. Candidates may contact nearest recruiting office / zone as given in Para 6 of the advertisement for existing rules on acceptable medical standards.

(e) **Physical Standards**: Minimum Physical Standards (i) Height - 160 cm (ii) Weight - 50 Kg. (iii) Chest -77 cm. (iv) Physical Fitness Tests (PFT) -candidate should be able to run 1600 meter in eight minutes.

### PROCEDURE OF SELECTION:

3. (a) The recruitment will be carried out through all the HQ Recruiting Zones, IRO Delhi Cantt, Ladakh Scout Regt Centre Leh and JAKLI Regt Centre Srinagar.  
 (b) **Submission of Application** : Application duly filled as per performa given in the advertisement will be submitted by the candidate alongwith the required documents duly superscribed (**APPLICATION FOR JCO (RT) COURSE NO 72 & 73**) on top outer cover of envelope to the HQ Rtg Zone / IRO Delhi Cantt / Ladakh Scout Regt Centre Leh / JAK LI Regt Centre Srinagar of which the individual is a permanent native / resident latest **by 25 Apr 2013**. They can appear for written exam only from the place of domicile. Application submitted to a different org of which the candidate is not domicile of will be rejected. Postal Addresses of all Headquarters Recruiting Zones & concerned Regimental Centres are given at Para 6.  
 (c) Candidates found eligible will be issued call up letters by the concerned office/ recruiting organisation for initial screening which will include checking of original certificates followed by medical examination.  
 (d) The screened candidates will be put through written examination which will be conducted on **30 Jun 2013** and will comprise of two papers as follows :-

**PAPER I** : (Maximum Marks -100). This will contain objective type questions on general awareness and will be common to candidates of all Religious denominations.

**PAPER II** : (Maximum Marks -100). This will test the knowledge specific to particular religious denomination to which the candidate belongs. The paper may be answered in English or Hindi.

**Note** : Only those candidates who qualify in Paper I by securing a minimum 40 out of 100 marks will be allowed to appear in Paper - II.

(e) In Paper II candidates are required to secure a minimum of 40 marks out of total 100 marks and come in the merit list to be eligible for appearing in the interview. The number of candidates to be called for interview will be three times the number of vacancies. Only those candidates who come in merit will be interviewed by a board of officers at the nominated Regimental Centre. The interview will be out of 100 marks.

(f) Candidates are required to secure minimum 50 out of 100 marks to qualify in the interview.

(g) The final selection will be based on merit list drawn on the basis of the total marks obtained in Paper II and Interview.

(h) Candidates finally selected will be enrolled as JCO (RT) and will undergo six weeks training at Regimental Centre followed by eleven weeks training at Institute of National Integration, Pune.

(j) Rejection can take place at any stage during training also.

### NUMBER OF VACANCIES

4. Total no of Vacancies as per religious denomination for **RRT 72 Course are Pandit 31, Maulvi 03 & Padre 02** and **RRT 73 Course are Pandit 19, Maulvi 02 & Padre 03**.

### 5. TERMS OF SERVICE.

(a) **Appointment**: On successful completion of training the candidates will be commissioned as Religious Teachers in the rank of Naib Subedar.

(b) **Promotion**: All JCOs (Religious Teachers) will become eligible for paid acting promotion to the rank of Subedar/Risaldar on completion of at least 10 years service as a religious teacher.

(c) **Pay, Allowances and Perks**: The JCO (RT) will be placed at the minimum pay scale of Rs. 9300-34800. In addition they will be entitled to DA, free accommodation, entitled ration for self, uniform, free medical and leave travel concession for self, family, and dependents, canteen facilities and other allowances as admissible to the regular Army.

(d) **Retirement** : Normal age of superannuation for JCO (RT) in the rank of Subedar will be 57 years. A Subedar Major (RT) will retire on completion of four years of service as Subedar Major or 57 years of age, whichever is earlier.

### 6. Postal Address of Headquarters Recruiting Zones/ Concerned Regimental Centers:

- |  |   |  |
|--|---|--|
| 1. HQ Rtg Zone, Ambala Chandershekhar Marg Ambala Cantt - 133001 (For Haryana and HP)          | 2. HQ Rtg Zone, Bangalore 148, Fd Marshal KM Kariappa Road Bangalore - 560025 (For Karnataka, Kerala and Lakshwadeep) | 3. HQ Rtg Zone, Chennai Fort Saint George Chennai-600009 (For Tamil Nadu, Andhra Pradesh, Pondicheri & AN Islands) |
| 4. HQ Rtg Zone, Danapur Danapur Cantt-801503 (For Bihar & Jharkhand)                           | 5. IRO, Delhi Cantt Delhi Cantt-110011 (For Delhi, Gurgaon, Faridabad & Mewat Dist of Haryana)                        | 6. HQ Rtg Zone, Jabalpur T-23, Ridge Road Jabalpur-482001 (For MP & Chattisgarh)                                   |
| 7. HQ Rtg Zone, Jaipur Shastri Nagar Post Box No 35 Jaipur (Ra)-302016 (For Rajasthan)         | 8. HQ Rtg Zone, Jalandhar Jalandhar Cantt-144005 (For Punjab and J & K)   | 9. HQ Rtg Zone, Kolkata 1, Gorkhle Road, Kolkata - 700020 (For W Bengal, Sikkim & Orissa)                          |
| 10. HQ Rtg Zone, Lucknow 236, M G Road Lucknow Cantt-226002 (For Uttar Pradesh) & Uttarakhand) | 11. HQ Rtg Zone, Pune 3, Rajender Singhji Road Pune-410001 (For Maharashtra, Goa Gujarat and UT of Diu & Daman)       | 12. HQ Rtg Zone, Shillong Shillong-793001 (For NE States)  |
| 13. Ladakh Scout Regt Centre PIN-910368, c/o 56 APO,   | 14. JAK LI Regt Trg Centre PIN-901196, c/o 56 APO   |  |

### APPLICATION FORM FOR JCO (RT)

Roll No \_\_\_\_\_

**PART I : PERSONAL DATA**  
**RRT COURSE SER**  
 (Fill in Block Letters)

1. Name in full (Block Capitals) : \_\_\_\_\_ (Do not use initials)
2. Father's Name (Block Capitals) : \_\_\_\_\_
3. Permanent Home Address :-  
 Vill/Colony/Locality \_\_\_\_\_  
 Post \_\_\_\_\_ Teh /Taluk \_\_\_\_\_  
 Distt \_\_\_\_\_ Pin \_\_\_\_\_  
 State \_\_\_\_\_ Tele No with STD code \_\_\_\_\_
4. Present Address :-  
 Vill/Colony/Locality \_\_\_\_\_  
 Post \_\_\_\_\_ Teh /Taluk \_\_\_\_\_  
 Distt \_\_\_\_\_ Pin \_\_\_\_\_  
 State \_\_\_\_\_ Tele No with STD code \_\_\_\_\_  
 E-mail address \_\_\_\_\_ Mob No \_\_\_\_\_
5. Caste/Tribe \_\_\_\_\_ Religion \_\_\_\_\_  
 Nationality \_\_\_\_\_ Mother Tongue \_\_\_\_\_
6. Date of birth \_\_\_\_\_  
 (Attach CTC/Xerox copy duly attested of Matriculation certificate)
7. Marital status Married/Unmarried (If married, attach an affidavit from Magistrate stating that you have single spouse only)
8. Any outstanding achievements (Sports/Education)  
 (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_
9. Son of Serving/Ex-serviceman/Son of War Widow : Yes / No  
 /Son of Widow
10. NCC Certificate : 'A'/'B'/'C'  
 (If 'Yes' attach CTC copy of Certificate).
11. Previous/Current employment (If any) Yes/No  
 (If 'Yes' attach CTC copy of 'No Objection Certificate' from employer).

Affix  
Passport  
size photo  
(3.5cm x  
4.5cm)

### PART II : ELIGIBILITY

Ser No	Name of the Employer (full address with telephone No)	Designation	Duration	Remarks

### 12. Religious Education Qualification :-

Ser No	Exam	Subject	Year	Institute where studied	Board / University	Division Scored (with percentage)

### 13. Language :-

Ser No	Language	Examination Passed	Proficiency Read, Write, Speak	Remarks

### PART III : DECLARATION

14. I certify that :-  
 (a) The above information is true to the best of my knowledge and belief. I am liable to be disqualified if any information given above is found to be incorrect/incomplete/false.  
 (b) I am fully aware that recruitment is a FREE service and no money is required to be paid to any agency. If at any stage, it is discovered that I have paid any money to get recruited, I am liable to be disqualified/ discharged from service.  
 (c) I will not claim any compensation for any injury/ disability sustained by me during screening and selection process.
15. I declare that I am submitting the attested photocopy of the following certificates :-  
 (a) Character / Conduct certificate.  
 (b) High school certificate.  
 (c) Intermediate (10+2) certificate.  
 (d) Graduation certificates.  
 (e) Photocopies of detailed marks sheet separately for each year of Graduation:-  
 (i) First year (ii) Second year (iii) Third year  
 or  
 Photocopies of detailed marks sheet separately for each year of Post Graduation :-  
 (i) First year (ii) Second year

**Government of India  
Ministry of  
Defence**

**Corps of Military Police Centre and School Bangalore: Invites Applications for the following Group 'C' Posts from the Indian Nationals**

**1. Painter : 01 Post (UR)**

**Essential Qualification:-**

- (a) Matriculation or its equivalent.
- (ii) ITI Certificate or National Certificate Trade Vocational Training or Ex-Trade apprentices.
- (iii) One year experience in the trade from any recognised institution.

(PB-I, Pay Band : Rs.5200-20200 + Grade Pay Rs. 1900/- + Allowances as admissible).

**2. BARBER : 01 Post (ST)**

**Essential Qualification:-**

- (i) Matriculation pass or equivalent from recognized Board with proficiency in Barber's trade job.
- (ii) One year experience in the trade. (PB-I, Pay Band Rs.5200-20200 + Grade Pay 1800/- + Allowances as admissible).

**3. ER: 01 Post (SC)**

**Essential Qualification :** - (i) Matriculation pass or equivalent from recognized Board (ii) Should be able to carry out all canvas, textile and leather repair and replacement of equipment and boots (PB-I, Pay Band Rs.5200-20200 + Grade Pay 1800/- + Allowances as admissible).

**4. GENERAL INSTRUCTIONS :**

- (a) Age : Minimum 18 years & Maximum 25 years for General candidates, (relaxation for ST/SC candidates - 05 years and for Govt. servants in accordance with the instructions or orders issued by the Central Govt.) as on **21 days** from the publication of the advertisement.
- (b) Screening process to be followed such as applicability of written/practical tests/oral interview as applicable to the posts. Question papers will be available in both English and Hindi Language.
- (c) Applications completed in all respect along with attested copies of necessary certificates to be submitted to **The Commandant CMP Centre and School, Neelasandra Lines, Bangalore - 25**, within 30 days from the date

of publication of this advertisement in News Paper. Candidates are requested to super-scribe the words "APPLICATION FOR THE POST OF \_\_\_\_\_" on the top of the envelope while sending the application form.

(d) Candidates must paste the latest attested passport size photograph on the top and right side of the application form. Applications received after the due date and incomplete and essential certificates not found attached shall be rejected.

**Application to be forwarded in A4 Size paper with following Bio-data along with attested copies of educational certificates, caste certificates, experience certificates (where applicable), domicile certificates and character certificates : -**

- (i) Post applied for :
  - (ii) Name in full (Block letters) :
  - (iii) Father's Name :
  - (iv) Permanent & Correspondence Address with Pin code :
  - (v) Date of Birth:
  - (vi) Caste : General (Attach certificate as applicable)
  - (vii) Education qualification :
  - (viii) Experience :
  - (ix) Physically Handicapped details (if applicable) :
  - (e) Applicants are advised to send application either in English or Hindi
  - (f) Applicants are advised to send two self addressed envelope duly pasted with Rs.5/- postage stamp.
  - (g) Call letters will be sent to the candidates in whom respect application found correct after screening of the same for written/practical test.
  - (h) CMP Centre and School will not be responsible for any postal delay.
  - (j) No correspondence/complaint in this regard shall be entertained.
  - (h) No TA/DA for test/interview will be paid. Candidate will make their own boarding/lodging arrangement for test/interview.
- Note :** (i) The number of vacancies notified are subject to change without any further notice.  
(ii) The organization has the right to reduce the number of candidates for written/practical test on the basis of %age of marks obtained in minimum essential qualification. **EN 50/66**

**Sainik School Gopalganj**

Post - Hathwa, Dist-Gopalganj (Bihar) Pin 841 436  
Tele Nos : 06150-231681/232546, Fax : 06150-231681  
Web site : www.ssgopalganj.in, E-Mail : ssgopalganj@rediffmail.com  
**VACANCY**

1. Applications are invited from Indian nationals for the following regular/contractual posts.

Ser	Post	Age	Pay Band/ Salary	Eligibility
(a)	Laboratory Assistant Regular -03 Posts (Physics-01 Chemistry-01 & Biology- 01)	Between 21-35 years as on 01 April 2013	Rs. 5200-20200 Grade Pay Rs. 2400	<b>Essential Qualification</b> Intermediate Science or Equivalent academic qualification in the subject. <b>Desirable</b> 1. Degree/Diploma in Science stream from a recognised university. 2. Knowledge of lab records and their maintenance.
(b)	Upper Division Clerk Store (UDC Store) Regular- 01	Between 18-50 years as on 01 Apr 2013	Rs. 5200-20200 Grade Pay Rs. 2400/-	<b>Essential Qualification</b> 1. Graduate with at least 2 years experience as Store Clerk in a Govt or Govt recognised organisation. 2.Ex-servicemen with min 15 years of service of SKT category (or equivalent in Navy & Air Force) are eligible to apply. <b>Desirable</b> 1. Ability to correspond independently in English. 2. Good knowledge of store keeping & store ledger maintenance. 3. Knowledge of MS Office.
(c)	Lower Division Clerk Store (LDC Store) Contractual- 01	Between 18-50 years as on 01 Apr 2013	Rs. 13,295/- (consolidated)	<b>Essential Qualification</b> 1. Minimum Matriculation pass. 2. Ex-servicemen of SKT category (or equivalent in Navy & Air Force) are eligible to apply. <b>Desirable</b> 1. Ability to correspond independently in English. 2. Knowledge of store keeping & store ledger maintenance. 3. Knowledge of MS Office.
(d)	Lower Division Clerk (LDC) Contractual-01	Between 18-50 years as on 01 Apr 2013	Rs. 13,295/- (consolidated)	<b>Essential Qualification</b> 1. Minimum Matriculation pass. 2. Typing speed of at least 40 words per minute 3. Proficiency in computer, MS Word, MS Excel & Power Point. <b>Desirable.</b> Knowledge in shorthand and ability to correspond in English would be preferred.
(e)	Band Master Contractual-01	Between 18-50 years as on 01 Apr 2013	Rs. 19,500/- (consolidated)	<b>Essential Qualification</b> 1. Minimum 10 <sup>th</sup> pass 2. Band Master/Band Major/Drum Major Course qualified at AEC Training College & Centre Pachmarhi. 3. Equivalent Naval/Air Force course. <b>Desirable.</b> Experience in Pipe Band.
(f)	General Employee (Regular) - 01	Between 18-50 years on 01 Apr 2013	Rs. 4440 - 7740/- Grade Pay Rs. 1300/-	<b>Essential Qualification</b> 1. Minimum 10 <sup>th</sup> pass 2. Experience in handling boys in the school.
(g)	General Employee Contractual - 06	Between 18-50 years on 01 Apr 2013	Rs. 9,800/- (consolidated)	<b>Essential Qualification</b> 1. Minimum 10 <sup>th</sup> pass 2. Person of Painter, book binding, vehicle mechanic, DG Set Mechanic, cobbler & Mess attendant trade and experience would be preferred.

**2. Emoluments: -**

- (a) **For Regular Posts.** DA, Free accommodation, transportation allowance, medical allowance, LTC, Bonus, Pension under New Pension Scheme, subsidized education for two children, CSD and sports facilities etc.
- (b) **For Contractual Posts.** Consolidated pay (Band Pay+ Grade Pay+ DA rate applicable as on **01 April 2013**), free accommodation, food at subsidised rates (free for Band Master) and CSD & sports facilities.
- 3. Candidates below 40% in their academic qualifications need not apply.
- 4. Application forms can be obtained from the school office **within 14 days** from the publication of this advertisement or can be downloaded from the school website **www.ssgopalganj.com**. The application forms along with attested copies of certificates and testimonials mentioning percentage from Matriculation onwards, a passport size photograph, bio data including telephone/mobile number/ email ID and crossed Bank Draft of Rs. 300/- for Ser (a) to (e) and Rs. 100/- for (f) & (g) (Non Refundable) drawn in favour of **Principal, Sainik School Gopalganj, Payable at SBI Branch Narainia, Mirganj (Code-09212)**.
- 5. Last date of receipt of filled in application form in the School is **within 21 days** from the date of publication of this advertisement.
- 6. Any query can be clarified on School Office Telephone/Fax: 06150-231681. School will not be responsible for any postal delay.
- 7. Only short-listed candidates will be called for written test and interview. The list of short listed candidates called for written test and interview would be placed on the school website after **45 days** of the publication of this advertisement.
- 8. **No TA/DA will be admissible for attending the Written Test and Interview.**
- 9. The school administration reserves the right to cancel any vacancy/ vacancies due to any administrative/policy reasons.

**Principal  
Sainik School Gopalganj  
EN 50/46**

Continued from page 22

- (f) Domicile certificate.
- (g) NCC Certificate.
- (h) Relationship certificate (Son of Serving/Ex-serviceman/Son of War Widow/Son of Widow) (attach CTC of proof duly authenticated by the concerned Records Office)

Dated : \_\_\_\_\_ (Signature of the Candidate)

**INSTRUCTIONS**

- 1. Duly filled up Application as per the given format will be addressed to concerned addressee as mentioned in Para 6, write " APPLICATION FOR JCO (RT) COURSE NO \_\_\_\_ on top of the envelope containing applications.
- 2. Application may be handwritten or typed on A4 size paper as per the given format.
- 3. Affix your recent passport size photograph without sun glasses at the space provided in the application form. Photograph taken with Polaroid camera or computer print will not be accepted. An additional self attested photograph also be submitted along with application form.
- 4. Enclose three self addressed stamped Registered envelopes issued by the Department of Post & Telegraph giving your present address with PIN Code on which acknowledgment/call up notice/rejection slip is to be sent.
- 5. A candidate whose application has been rejected earlier may apply again if eligible/ age permits.
- 6. All incomplete applications will be rejected.

**NOTE**

- 1. All above terms and conditions, vacancies and selection procedures are subject to change from time to time.
- 2. List of recognised universities to be verified from nearest HQ Recruiting Zone / ARO/ IRO Delhi Cantt.
- 3. Only Male candidates are eligible to apply.
- 4. Candidates who are serving with any organization and are selected for the interview will produce "No Objection Certificate" from their employee at Zonal Recruiting Office before dispatch.
- 5. The candidates declared successful in the written examination and short listed for interview will be communicated about the interview dates by post through self addressed envelopes and the list will also be displayed at their respective HQ Recruiting Zones by **20 Aug 2013**. The list of finally selected candidates will be displayed at their respective HQ Recruiting Zones by **30 Oct 2013**. Recruiting organization will not be responsible for non receipt of communication due to postal errors and incorrect/incomplete address furnished by the candidates.
- 6. The candidates are required to produce the following documents, when called for screening :-
  - (a) Character certificate by Sarpanch of the Village or authorized signatory of the State Government.
  - (b) Domicile/Resident/Nativity certificate from the authorized signatory of the state Government.
  - (c) Original Certificate from matriculation onward and detailed Mark sheet of each year separately pertaining to Educational qualification.
  - (d) NCC Certificate in original, if applicable.
  - (e) Son of serviceman/Ex-servicemen, son of war widow/son of widow, certificate in original, if applicable.
- 7. Permanent body tattoos are only permitted on inner face of forearms i.e. from inside of elbow to the wrist and on the reverse side of palm / back (dorsal) side of hand. Permanent body tattoos are any other part of the body are not acceptable and candidates will be barred from further selection. Tribes with tattoo marks on the face or body as per their existing custom and traditions will be permitted on a case to case basis.

"Do not waste your money on touts.  
Recruiting process has been Computerized, and Touts cannot do anything.  
Have faith on your hard work"

**LAST DATE FOR RECEIPT OF APPLICATION 25 APR 2013**

**Government of India  
Northern Region Farm Machinery Training and Testing  
Institute**

(Ministry, of Agri., Deptt. of Agri. and Co-opn.)  
(Mechanics & Technology Division)  
Sirs Road, Hisar  
(Haryana) - 125001

Applications on plain paper are invited for the following post within **60 days** from the date of its publication alongwith attested copies of certificates and photograph, mentioning the details such as : Name of the post, Name of Candidate (in block letters), Father's Name, Mailing Address, Nationality, whether SC/ST/OBC, Date of Birth, Educational Qualification, Technical Qualification, Details of experience if any, any additional information and Signature of the candidate. Govt. servants may apply through proper channel. Applications may be sent to the Director on the above address.

**A P.A to Director :**

- 1. **Name of the Post : P.A to Director on deputation**
- 2. **Scale of Pay :** 9300-34800+4200 GP
- 3. **Eligibility/ Experience :** Officers of the central Govt. holding analogous posts or Stenographer in the scale of Rs.5200-20200 +GP 2400 or equivalent post with eight years regular service in the grade.
- 4. **Age limit :** The maximum age limit for appointment by deputation ( including short term contract) shall be not exceeding 56 years as on the closing date of receipt of applications.

**EN 50/9**

No. 3/3/2009 LNJV NICS  
 Government of India  
 Ministry of Home Affairs  
**LNJV National  
 Institute of  
 Criminology and  
 Forensic Science**  
 Institutional Area, Outer Ring  
 Road, Sector-3, Rohini  
 Delhi 110085

Applications are invited in the prescribed proforma from suitable persons for filling up the following posts in LNJV National Institute of Criminology and Forensic Science(MHA), Delhi as per details given below:-  
**S.No : 1**

**Name of the post & pay scale :**  
 Private Secretary Rs. 6500-10500  
 (Pre-revised)

**No. of posts : 02**

**Method of recruitment :**  
 Composite method [Deputation (including short term contract) plus promotion]

**Eligibility conditions :**  
 Composite method Deputation (including short term contract) plus/promotion:  
 Officers of the Central/State Government/Union Territories/Public Sector Undertakings:-

(a) (i) holding analogous post in the Stenographer's grade on regular basis in the parent cadre/department; or  
 (ii) with three years' regular service in the Stenographers' grade rendered after appointment thereto on a regular basis in the scale of pay of Rs. 5500-9000 or equivalent in the parent cadre/department; or  
 (iii) with six years' combined service in the Stenographers' grade rendered after appointment thereto on a regular basis in the scale of pay of Rs. 5500-9000 and Rs. 5000-8000 or equivalent in the parent cadre or department.

2. The Departmental Stenographer Grade 'B' (Personal Assistant) in the pay scale of Rs. 5500-9000 with three years regular service in the grade or combined regular service of six years in the grade of Stenographer Grade 'B' and Stenographer Grade 'C' (Rs. 5000-8000) shall also be considered alongwith outsiders and in case he/she is selected for appointment to the post, the same shall be deemed to have been filled by promotion. The departmental officers in the feeder category who are in the direct line of promotion will not be eligible for consideration for appointment on deputation. Similarly, deputationist shall not be eligible for consideration for appointment by promotion. Period of deputation (including short term contract) including period of deputation in another ex-cadre post held immediately preceding this appointment in the same or some other organisation/ department of the Central Government shall ordinarily not exceed three years. The maximum age limit for appointment by deputation (including short term contract) shall be not exceeding fifty six years as on the closing date of receipt of applications.  
**S.No : 2**

**Name of the post & pay scale :**  
 Senior Library Attendant Rs. 5200-20200 (PB-1) Grade Pay Rs. 2000/-

**No. of posts : 01**

**Method of recruitment :**  
 Deputation (including short term contract) or promotion

**Eligibility conditions :** As per details given below:  
**S.No : 3**

**Name of the post & pay scale :**  
 Library Attendant Rs. 5200-20200 (PB-1) Grade Pay Rs. 1900/-

**No. of posts : 01**  
**Method of recruitment :**  
 Deputation (including short term contract) or promotion

**Eligibility conditions :** As per details given below:  
**Note: The candidates who are drawing higher pay may also apply but their pay will be regulated as per DoP&T OM No. 16/4/2012-Pay.I dated 5/11/2012**  
 Officials holding analogous posts under Central Government or

Continued on page 25



# Directorate of Groundnut Research (Indian Council of Agricultural Research) Ivnagar Road, PB No. 5, Junagadh-362 001, Gujarat, India Phone: (0285) - 2673041, 2672461, Fax: (0285) - 2672550

## Applications are invited from eligible persons for filling up the following posts.

Sl.No.	Name of the post	Educational Qualification	Pay Band & Grade pay	Age	Total number of posts	SC	ST	OBC	UR
1	Senior Technical Assistant (T-4)	Bachelor's degree in Agriculture or Bachelor's degree in Biology or Life Sciences or Bio Science from a recognized university	PB-2 Rs. 9300-34800 + GP4200	18-30 years Relaxable for OBC, SC as per GOI rules. No age limit for ICAR employees	03	01	00	00	02
2	Technical Assistant (T-3)	-do-	PB-1 Rs. 5200-20200 + GP2800		01	00	00	00	01

**3 Stenographer (English) Gr. III (unreserved)**

**Qualification:**

**Essential Education:** 12th class pass or equivalent from a recognized Board or University. **Professional efficiency:** Passing examination of shorthand & typewriting in English conducted by any government/recognised institutuin. The candidate will be given one dictation test in English at 80 WPM for ten minutes. The candidates will be required to transcribe the matter in 50 minutes on Computer. **Desirable :** Ability to type in Hindi. **Age:** 18-27 years Relaxable for OBC, SC as per GOI rules. No age limit for ICAR employees. **Pay Band & Grade pay :** PB-1 Rs. 5200 - 20200 + GP2400.

**General Instructions:**

(1) The prescribed qualifications are minimum and do not entitle candidates to be called for written test and interview. Only shortlisted candidates will be called for test-interview. (2) The post is non-government under the Indian Council of Agricultural Research and will be governed by New Pension Scheme introduced by Govt. of India w.e.f. 01.01.2004. (3) A latest passport size photograph duly attested by a Gazetted Officer may be affixed on the application. (4) Crucial date for determining the age limit of candidate will be the closing date of receipt of application. (5) Candidates in service of the Central/State Govt./PSUs/Autonomous bodies etc. should apply through proper channel. (6) TA/DA is admissible for test-interview only to SC candidates as per rules. (7) Canvassing in any form will be treated as disqualification. (8) Applications should be made on plain paper giving complete bio data as per the pro forma and supported by attested copies of the certificates of qualifications and experience. (9) The sealed envelope super scribed "Application for the post of Technical Personnel" should reach the Director, Directorate of Groundnut Research, P.B. No. 5, Ivnagar Road, Junagadh-362 001, Gujarat on or before **26.04.2013 (5:00 p.m.)** (10) Applications received after the due date for any reasons including postal delays will not be entertained. (11) Caste Certificate may be submitted in the latest prescribed proforma which is published along with the advertisement. (12) For different posts different application should be sent. (13) Candidate is required to furnish the details regarding nature of relationship if any, with the ICAR employees working at this Directorate, any other institute of the ICAR or at ICAR Headquarters failing which the application will be rejected. (14) Application format and form of caste certificate for SC may be downloaded from website.

**Website: <http://www.nrcg.res.in>**

EN 50/79

**DEPARTMENT OF BIOTECHNOLOGY**  
 (Government of India)  
 Ministry of Science & Technology  
**AWARD OF DBT-JUNIOR RESEARCH FELLOWSHIP (DBT-JRF)**  
 IN BIOTECHNOLOGY (2013-14)  
 (Co-ordinated by National Centre for Cell Science, Pune)



**GENERAL**  
 Applications are invited from Indian nationals for the award of "DBT-Junior Research Fellowship" (DBT-JRF) for pursuing research in frontier areas of Biotechnology and Applied Biology. JRFs will be selected according to merit under two categories: Category A and B. Category A fellowship (Top 100 in number) are tenable in any University / Institute in India where the students can register for Ph.D. Category B fellowships (175 in number) are tenable exclusively at the 71 DBT-Supported Teaching University / Institute running DBT-supported Masters programme, and 14 DBT Institutes, where the students can register for Ph.D. For further details please visit <http://nccs.sifyitest.com/BET2013>. Students can also visit NCCS website for details: [www.nccs.res.in/dbtjrf.html](http://www.nccs.res.in/dbtjrf.html)

**ELIGIBILITY**  
 Students who have passed after Jan. 1, 2012 or will appear (till August, 2013) for Masters in Biotechnology and Bioinformatics (M.Sc. / M.Tech. / M.V.Sc.), Molecular Human Genetics offered at BHU and Jiwaji University and Neuroscience offered at Jiwaji University, NBRC and TIFR, and B.Tech. Biotechnology (4-year course) recognized by UGC / AICTE are eligible for this award. The applicants should be below the age of 28 years for Open category and 33 years in case of SC / ST / PH and women candidates as of 28th February 2013. Candidates with 60% (55% for SC/ST/PH) of the total marks (equivalent in grade) are eligible.  
 DBT-BET entitles a candidate for fellowship subject to Ph.D registration of the candidate in a recognized university or Institute in the country within a year. At present, very few institutes or universities allow B.Tech to register for Ph.D. directly. Registration for Ph.D is candidate's responsibility and NCCS or DBT have no role in this.

**DETAILS OF THE AWARD**  
 The fellowship will be initially for a period of 3 years extendable for 2 more years based on performance. By the end of 2nd year the performance of JRF will be assessed and will be upgraded to SRF. The fellowship for JRF / SRF will be @ Rs. 16,000/- / 18,000/- per month + HRA as per host Institute norms, and a research contingency of Rs. 30,000/- per year.

**MODE OF SELECTION**

The candidates will be selected based on a single session online admission test, "Biotechnology Eligibility Test" (BET) to be conducted on **21st April, 2013** at 10 AM in the following twelve cities:  
 New Delhi, Kolkata, Guwahati, Hyderabad, Chennai, Pune, Bengaluru, Chandigarh, Lucknow, Patna, Thiruvananthapuram & Ahmedabad.  
 Candidates, only belonging to SC / ST / Physically challenged, called for BET examination will be paid II class railway (non-AC) / bus fare by the shortest route from their home town, on production of supportive documents of competent authority. The details of examination centres in above cities will be notified later on the website and on the Hall Ticket.

**MODE OF APPLICATION**

Candidates should register and apply online in the prescribed application form obtainable at the URL <http://nccs.sifyitest.com/BET2013> starting on **25th February 2013**. All the details about the application process and the examination are available on the web site. The last date for submission of online application form is **27th March, 2013**. Stepwise procedure for filling the online application form, payment of application fees and uploading of required documents / certificates is given in the above said URL. An application fee of Rs. 500/- for Open and Rs. 250/- for SC/ST/PH categories is payable either online or offline as detailed on the web site for completion of application process. The application fee is non-refundable and non-transferable.

**CO-ORDINATOR,  
 DBT-JRF PROGRAMME, NCCS, PUNE - 411 007**

EN 50/33

**RAILWAY RECRUITMENT BOARD**  
 S.C.O. 34, 2ND FLOOR, SECTOR 7-C, MADHYA MARG, CHANDIGARH-160019  
 Website: [www.rrbcdg.gov.in](http://www.rrbcdg.gov.in)

**RESULT OF SKILL TEST/ DATE FIXED FOR CANDIDATURE AND DOCUMENTS VERIFICATION**

On the basis of Written Examination held on 22.04.2012 followed by Skill Test held on 12.01.2013 by this Board for the post of Stenographer/ Jr. Stenographer (Hindi) published through Employment Notice No. CEN-08/2010, the candidates bearing following Roll Nos. have been found provisionally suitable for Candidature & Documents Verification (Subject to Fulfillment of eligibility conditions). These candidates are required to report to RRB/Chandigarh Office as per details given below with Original Documents viz Certificates and Marks-Sheets of Educational Qualification, Caste Certificate, Proof of Age, Coloured photographs (Passport Size) etc., along with two sets of self attested Photocopies of these certificates for verification. The candidates belonging to SC/ST and OBC should bring their original caste certificates in the prescribed format of the **Central Govt.** In case of OBC candidates, the Caste Certificate should have a clause of non-creamy layer.  
 The Extra candidates are also being called for Candidature and Documents Verification over and above the number of vacancies, primarily to avoid shortfall in the panel. Such candidates should note that merely calling them for documents verification does not, in any way, entitle them to appointment in the Railways.

**VENUE : RRB/CHANDIGARH OFFICE**  
**DATE OF DOCUMENT VERIFICATION : 14.03.2013** **REPORTING TIME: 09.00 Hrs.**

17091334001087 17091334001251 17091334001279 17108013000241 17108013000262  
 17108013000291 xxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxx (Total = 06 only)

**Extra Candidate: 17108014000430 (One only)**  
 The Individual candidates are also being informed through separate letters. However, RRB will not be responsible for the postal delay or wrong delivery, if any in case of non-receipt of letters, the candidate may contact RRB one day prior to the date of his/her document verification along with documents. The candidates who fail to turn up or report without proper documents, his/her candidature shall liable to be cancelled.

While every care has been taken in preparing the above result, the possibility of any inadvertent error cannot be ruled out. The Board do not take responsibility for such errors and reserve the right to rectify the same later on.

**IMPORTANT :- Candidates are advised to beware of fake Website which may be of misleading nature. Candidates are also advised to Log on to only the authorized Website of Railway Recruitment Board and refer to Instructions published in Centralized Employment Notifications.**

**Date: 26.02.2013** **CHAIRMAN**

"SERVICE WITH A SMILE"

EN 50/77

**NATIONAL INSTITUTE OF ANIMAL BIOTECHNOLOGY (NIAB)**  
 (An Autonomous Institute of the Deptt. of Biotechnology, Ministry of Science & Technology, Government of India)  
 University of Hyderabad Campus, Central University Post Office, Hyderabad, Andhra Pradesh, India - 500 046 Website: [www.niab.org.in](http://www.niab.org.in); Tel: +91 40 2301 3900; +91 40 2301 2426; Telefax: +91 40 2301 0745

**Advertisement No. 1/2013**

NIAB invites applications from Indian citizens for the following scientific and technical positions.

Name of the Post	No of Vacancies	Pay Band & Grade Pay
Scientist- F	02(UR)	37400-67000 + 8900
Scientist- E	02(UR)	37400-67000 + 8700
Scientist- D	01(UR)	15600-39100 + 7600
Scientist- C	01(UR)	15600-39100 + 6600
Scientist- B	01(UR)	15600-39100 + 5400
Technical Officer	02(01 UR) (01 OBC)	9300-34800 + 4200

Please visit our website <http://www.niab.org.in> for detailed advertisement and application form.

**Date of commencement of online applications: 16-03-2013**  
**Last date for receipt of online applications: 05-04-2013**  
**Last date for receipt of printout of online applications: 20-04-2013** **Sd/- DIRECTOR**

EN 50/58

**Tele: "JIPMER"** Phone: 0413 - 2272380-2272389  
**Website: [www.jipmer.edu.in](http://www.jipmer.edu.in)** Fax: 0413 - 2272067 - 2272735

**JAWAHARLAL INSTITUTE OF POST GRADUATE  
 MEDICAL EDUCATION & RESEARCH**  
 Dhanwantri Nagar, Puducherry - 605 006.  
 (Institute of National Importance under Ministry of Health & Family welfare)

Admn.I.1(22)/2013 Date: 01.03.2013

Applications are invited from eligible officers from Organized Accounts Services / Organized Accounts Departments for filling up the One post of **Finance & Chief Accounts Officer** in the Pay Scale of Rs.15600-39100+GP 6600/- (Pre-revised Rs.10000-15200/-) on Deputation basis at JIPMER, Puducherry.

The format of the application and the details regarding age, qualification, experience and other conditions of eligibility etc. for the post is available in the website: [www.jipmer.edu.in](http://www.jipmer.edu.in)  
**The last date for receipt of filled in applications is 15.04.2013.**

Director

EN 50/74





**Directorate General, BSF**BLOCK NO.10, CGO Complex, Lodhi Road, New Delhi - 110 003  
(Ministry of Home Affairs)

No./62/2012-Pers/BSF

Subject:- FILLING UP OF THE POSTS OF ASSTT COMMANDANT (WORKS) &amp; ASSTT COMMANDANT (ELECT) IN BSF ENGG SET UP ON DEPUTATION BASIS

**1. Description of posts:-**

S.No.	Post	Vac.	Pay Scale
1.	Asstt Comdt(Works)	05 (SC-02 & ST-03)	Pay Scale PB:3 (Rs.15600 - 39100) and Grade Pay of Rs.5400/-
2.	Asstt Comdt(Elect)	03 (SC-02 & ST-01)	Pay Scale PB:3 (Rs.15600 - 39100) and Grade Pay of Rs.5400/-

2. - For the details of the posts, its eligibility conditions and modalities of recruitment, please log on [www.bsf.nic.in](http://www.bsf.nic.in).

(Vikash Chandra)

Dy Inspector General(Pers)

davp 19110/11/0415/1213

EN 50/4

No. 1-5/2013-NRAA

Government of India

**Planning Commission  
National Rainfed Area Authority**

NASC Complex, A Block, 2nd Floor, PUSA, New Delhi

Filling up of the posts of Technical Expert (Water Management) and Technical Expert (Watershed Development) in National Rainfed Area Authority.

1. National Rainfed Area Authority (NRAA) was established by Government of India on 3rd November, 2006 to provide much needed knowledge inputs regarding systematic upgradation and management of country's dryland and rainfed agriculture. NRAA is an advisory, policy making and monitoring body charged with the role of examining guidelines in various existing schemes and in the formation of new schemes. It shall bring about convergence and synergy among the numerous ongoing programmes and shall advise, guide and monitor their progress. The Authority is a two tier structure. The authority is headed by Chief Executive Officer (CEO) in the rank of Secretary to the Govt. of India who is supported by five Technical Experts in the rank of Additional Secretary or Joint Secretary to the Govt. of India. As per the Business Allocation Rules, NRAA has been relocated from Department of Agriculture & Cooperation to Planning Commission.

2. One post each of Technical Expert (Water Management) and Technical Expert (Watershed Development) is required to be filled up. In order to ensure the widest possible choice, it was decided that a cross section of Departments, Organisations and Authorities should be approached to seek nomination of candidates for the post. Accordingly it is requested that you may kindly send nominations together with biodata and other information for the post of Technical Expert (Water Management) and Technical Expert (Watershed Development).

1. The requirements of the posts of Technical Expert (Water Management) and Technical Expert (Watershed Development) in the Pay band (HAG) Rs.67000-79000/- or (Pay Band 4) Rs.37400-67000/- plus Grade Pay Rs.10,000/- are as under:

(a) **Age:** The candidate should hold the office for a term of five years or up to the age of 65 years whichever is earlier. Those candidate who are less than 60 years age as on 10th April, 2013 may be given preference

(b) Other requirements for Technical Experts:

(i) **Technical Expert (Water Management)****Academic Qualification-** Minimum Master degree in Science / M.Tech or equivalent with good academic records from recognized university/Institute. Higher Qualification such as Ph.D etc. will be preferred.**Experience** - Candidate should have at least ten years experience in a senior position in the field of water management.**Field of Specialization** - Enhancing water productivity, improving water use efficiency in varying quality water, recycling of industrial and domestic affluent, ground water utilization, economic evaluation of water use and systems of application.(ii) **Technical Expert (Watershed Development)****Academic Qualification** :- M. Sc. /M.Tech in Soil. Agronomy, Soil Physics, Soil and Water Conservation engineering or equivalent from recognized university/Institute. Ph.D and higher qualification will be preferred.**Experience** - The candidate should have at least ten years field/ research experience in a senior position in the field of Soil Conservation and Watershed Management.**Field of Specialization** :- Experience in mobilisation of communities, capacity building, participatory rural appraisals, alternative institutions, conservation of water, soil and vegetation, water harvesting/ recycling and equitable distribution, devising activities for assetless, landless, women.Nominations / applications of suitable candidates along with their bio-data in the prescribed proforma may be sent to the address of Technical Expert (Admn.), A Block, 2nd Floor, NASC Complex, PUSA, Dev Prakash Shastri Marg, New Delhi-110 012. The last date for receipt of application/nomination is **10.4.2013**.This communication alongwith the proforma is also available on our website at "[www.nraa.gov.in](http://www.nraa.gov.in)."**Application format for the post of Technical Expert (Water Management)/ Technical Expert (Watershed Development) in the National Rainfed Area Authority**

1. Reference / Advertisement No. ....

2. Name of Post: .....

3. Name: .....

4. Father's Name: 5. Date of Birth: .....

6. Service to which applicant belongs: .....

7. Present/ last drawn basic pay &amp; scale: .....

8. Nationality: .....

9. Mailing address (with Tel./Mobile No. and E-mail address: .....

10. Permanent address: .....

11. Educational Qualification

S.No.	Course	Subject	University/ Institute	Year of Passing	Division/ Class

12. Work Experience

S.No.	Organisation / Institute	Period From To	Nature of Work	Remarks

Date:..... (Signature)

Note : Please attach the detailed bio-data alongwith this.

davp 54102/11/0002/1213 EN 50/40

**National Scheduled Castes Finance & Development Corporation (NSFDC), Delhi**

(A Govt of India undertaking)

**1. THE CORPORATION**

The National Scheduled Castes Finance & Development Corporation (NSFDC) was set up by the Government of India in February, 1989 under Section 25 of the Companies Act, 1956. The broad objective of NSFDC is to finance for the economic empowerment of persons including skill upgradation belonging to the Scheduled Caste families living below Double the Poverty Line. As on **31.12.2012**, the Authorized Share Capital of the Corporation is Rs.1,000/- crore and Paid-up Capital is Rs.779.80 crore.

2. **The Corporation is looking for suitable candidates for the following posts** On direct recruitment basis presently for its Headquarters at Delhi and Zonal Offices at Chandigarh, Bengaluru, Guwahati, Kolkata, Lucknow, Mumbai and Bhopal:

Sl. No.	Name of the Post & Pay scale	Minimum Qualification and Experience:	No. of posts					Upper Age Limit as on 01.03.2013
			SC	ST	OBC	UR	Total	
1.	<b>Asstt. Manager/ Asstt. Zonal Manager</b> Rs. 16400-40500	<b>Essential Qualifications:</b> PG Degree in Arts/Science/Commerce/Agric. Sc./Vet. Sc./BE from a recognised University <b>Desirable Qualifications:</b> MBA/LLB <b>Experience:</b> Minimum 3 years Experience in the relevant field in the supervisory level post.	-	-	-	1	1	32 Years
2.	<b>Personal Assistant</b> Rs. 11000-24350	<b>Essential Qualifications:</b> Degree in Arts/Science/Commerce from a recognised University. <b>Speed of 100/40 WPM in Shorthand and Typing (English/Hindi) respectively:</b> <b>Experience:</b> Minimum 3 years Experience in the relevant field.	-	-	1	2	3	28 Years
3.	<b>Junior Assistant</b> Rs. 10600-23250	<b>Essential Qualifications:</b> Degree in Arts/Science/Commerce from a recognised University. <b>Experience:</b> Minimum 3 years Experience in the relevant field.	-	1	-	-	1	27 Years
4.	<b>Stenographer</b> Rs. 10600-23250	<b>Essential Qualifications:</b> Degree in Arts/Science/Commerce from a recognised University. <b>Speed of 80/40 WPM in Shorthand and Typing(English/Hindi) respectively:</b> <b>Desirable:</b> One year Experience in the relevant field.	-	-	1	2	3	27 Years
5.	<b>Clerk-cum-Typist/Data Entry Operator</b> Rs. 10000-21100	<b>Essential Qualifications:</b> 12 <sup>th</sup> pass from a recognised education Board. <b>Speed of 30 WPM in Typing (English/Hindi) respectively.</b> <b>Desirable:</b> Degree in Arts/Sc./Com./Familiarity with the various computer packages like MS Office/MS words/MS Excel etc.	-	1	1	2	4	27 Years

The scales shown above are based on Industrial Dearness Allowance (IDA) Pattern. In addition, allowances/perks and other entitlements including encashment of leave, LTC, medical assistance for self and family, CPF, Gratuity, Insurance scheme etc. as admissible:

**3. NATURE OF RELEVANT EXPERIENCE REQUIRED :-**

**i) For Post No. 1 (Asstt. Manager/Asstt. Zonal Manager):** Preparation of Project profiles, formulation, scrutiny, appraisal, execution/implementation evaluation and monitoring of projects preferably of a developmental nature, disbursement of funds, impact assessment of projects on target groups/beneficiaries.

**ii) For Post No. 2 & 4 (Personal Assistant & Stenographer):**

- To take dictation and transcribe it, preparing draft documents
- Keeping record of incoming/outgoing files, papers, documents etc.
- Recording the minutes of the meetings held in the office of the reporting officers, as and when desired.
- Assisting the reporting officer in collecting data/information on various accounts from different Departments.

**iii) For Post No. 3 & 5 (Junior Assistant & Clerk-cum-Typist):** Knowledge of Computer applications packages like MS Office. Processing of documents with inputs like highlighting important points/issues, reference to rules and regulations, eligibility etc. Maintenance of files and records, proper upkeep of office equipment's.

**4. GENERAL INFORMATION :**

(i) Candidates employed in Govt., Quasi-Govt. and PSUs should apply through proper channel or produce 'NOC' from their employer at the time of interview.

(ii) Merely fulfilling the prescribed eligibility criteria will not vest any right in the candidate for being called for the test/interview.

(iii) Outstation candidates called for interview will be paid ordinary 1st class/3rd AC return journey rail fare for the post at Sl.1 above and for the posts at Sl. 2 to 5 above, ordinary 1Ind class/sleeper class return journey rail fare will be paid only to SC/ST candidates on production of railway receipt/ticket. The journey should be performed through shortest route from the nearest railway station of the residence of candidate to the place of interview.

(iv) Maximum age is relaxable by 5 years in case of SC/ST and 3 years for OBC candidates as per Govt. directives. Relaxation in age will also be applicable to Physically Handicapped and Ex-Servicemen as per Government Rules/DPE Guidelines.

(v) Out of the total four in number posts of **Clerk-cum-Typist/Data Entry Operator** one post is reserved for differently abled persons with **'Hearing Impairment/HH Category**.

(vi) For post no. 2 to 5 preference will be given to local candidates.

(vii) Incomplete applications or those received after the last date or sent without the requisite fee shall not be entertained.

(viii) Only Indian Nationals are eligible to apply. Selected candidates are liable to be transferred to anywhere in India depending upon the requirement.

(ix) Canvassing in any manner shall entail disqualification of candidature.

**5. HOW TO APPLY**

(i) Candidate should send his/her application on the prescribed application format which is available on our website "[www.nsfdc.nic.in](http://www.nsfdc.nic.in)". Applications received other than the prescribed application format will not be entertained.

(ii) Non refundable Demand Draft of Rs.50/- for the posts at Sl. 1 and Demand Draft of Rs.20/- for the posts at Sl. 2 to 5, (exemption for SC/ST/PH & Ex-servicemen candidates), drawn in favour of NSFDC, Delhi, must be sent with the application.

(iii) Attested copies of certificates of Date of Birth, Caste/Tribe/PH/Ex-servicemen (if applicable), experience and educational qualifications, should only be sent.

(iv) The envelope containing the application should be superscribed with the appropriate post applied for.

(v) Applications complete in all respect should reach **THE CHIEF MANAGER(HR), NSFDC, 14<sup>TH</sup> FLOOR, SCOPE MINAR, CORE '1' & '2', NORTH TOWER, LAXMI NAGAR DISTRICT CENTRE, LAXMI NAGAR, DELHI - 110 092, within 30 days** of the issue of this advertisement.

(vi) Candidate desirous of applying for more than one post should send his/her applications separately in the separate envelope superscribing the name of post applied for along with the requisite application fee. EN 50/13

**DIHAR  
Corrigendum**

Refer Adv No: DIHAR/HRD/13/01 in Employment News dated

**23 February, 2013** & Adv No: DIHAR/HRD/13/02 in Employment News dated **16 February 2013**.

It may please be noted that offer of Fellowship does not confer on Fellow any right for absorption in DRDO.

The date of Walk in Interview for Adv No: DIHAR/HRD/13/01 & Adv No: DIHAR/HRD/13/02 has been postponed to **21 March 2013**.

Director

DIHAR

davp 10301/11/0686/1213

EN 50/21

बँक ऑफ महाराष्ट्र  
**Bank of Maharashtra**  
ONE FAMILY ONE BANK**HRM Department****Corrigendum****RECRUITMENT OF 26 LAW OFFICERS IN THE BANK IN SCALE-I**

The following column regarding 'AGE' is substituted by amended column -

OLD CLAUSE	AMENDED / SUBSTITUTED CLAUSE
General - Min 21 and Max 30 years as on 31.12.2012. Relaxation in age for SC/ST, OBC & PWD candidates and Ex-Servicemen as per Government Guidelines	General - Min 21 and <b>Max 35</b> years as on 31.12.2012. Relaxation in age for SC/ST, OBC & PWD candidates and Ex-Servicemen as per Government Guidelines

Candidates who are fulfilling maximum age criteria upto 35 years as on 31.12.2012 may apply **within 15 days** from publication of this advertisement. Candidates who have already applied in response to the advertisement need not apply again.

Deputy General Manager

HRM

EN 50/14



**Government of India**  
**Ministry of Communications & IT**  
**Department of Telecommunications**  
**National Institute of Communication Finance**  
**Ghitorni, New Delhi-110047**

**No: 1-4/DG/Establishment/2012-NICF**  
**Filling of the posts of Sr. Communication Accounts Officer (Sr. CAO)/ Communication Accounts Officer (CAO), Asstt. Communication Accounts Officer (ACAO), Sr. Accountant and Jr. Accountant on deputation basis.**

1. National Institute of Communication Finance proposes to fill up 27 posts of Sr. Communication Accounts Officer (Sr. CAO)/ Communication Accounts Officers (CAO), Asstt. Communication Accounts Officers (ACAO), Sr. Accountant and Jr. Accountant in the Office of the Director General, NICF, Ghitorni, New Delhi and Ghaziabad from amongst the regular officers working in various Ministries/ Departments/PSUs of Government of India purely on deputation basis.  
2. The eligibility conditions for selection to the posts of Jr. Acctt., Sr. Acctt., ACAO and Sr. CAO/CAO are given in the Annexure- 'A'.  
3. The period of deputation will initially be for three years. The pay, terms & conditions of deputation of the officers selected shall be regulated in accordance with Deptt. of Per. & Trg. OM No. 2/29/91/establishment (pay-II) dated 05.01.1994 as amended time to time.  
4. The departmental officers in the feeder category who are in the direct line of promotion shall not be eligible for consideration for appointment on deputation. Similarly, deputationist shall not be eligible for consideration for appointment by promotion. The period of deputation including period of deputation in another cadre post held immediately preceding this appointment in the same or some other organisation/ department of the Central government shall ordinarily not exceed three years.  
5. The head of the departments, are requested, to forward the applications of only those eligible & willing applicants who can be spared on their being selected. No withdrawal after their selection on deputation will be entertained. Personal data may be sent (i) in the given Proforma (Annexure-'B'), (ii) along with attested copies of ACRs for the previous 5 years and (iii) Vigilance/ disciplinary Clearance Certificate to the undersigned by name so as to reach positively by **31st March 2013** for Sr. Accountant/Jr. Accountant and by **15th April 2013** in case of Sr. CAO/CAO/ACAO.  
6. The deputation of BSNL staff will be governed in accordance with DoT letter No. 34-08/2001/SEA-Vol. II dated 10.01.2012 regarding Engagement of BSNL staff in CCA Offices.

**(Kashi Nath Jha)**  
**Director, NICF**  
**011-26502459 (O)**  
**011-26501881 (F)**

**Annexure- 'A'**  
**The eligibility conditions for appointment of Jr. Accountant, Sr. Accountant, Asstt. Communication Accounts Officer, Sr. Communication Accounts Officer/ Communication Accounts Officer (P&T Accounts & Finance Service), Gr. 'C' and Gr. 'B' (Gazetted) in the O/o Director General, National Institute of Communication Finance.**  
**2. Place of Posting:** New Delhi and Ghaziabad  
**3. Pay Band:** Rs. 5200-20200 & GP: Rs. 2800 (Jr. Acctt.)  
Rs. 9300-34800 & GP: Rs. 4200, 4800 & 5400 (Sr. Acctt, ACAO & Sr. CAO/CAO)  
**4. Eligibility:** (a) Official/Officers under the Central Government

**Continued on page 28**

**NORTH CENTRAL RAILWAY, ALLAHABAD**

**WALK-IN-INTERVIEW FOR DOCTORS**  
North Central Railway intends to engage 11 (Eleven) full-time Contract Medical Practitioners (CMP) Specialist/General Duty Doctors on Contract basis for a duration of one year as per details given below:-

S. N.	Posts (Specialist/GeneralDuty)	Qualification	No. of Post	Place
1.	General Duty	M.B.B.S.	01	Health Unit/Aligarh
2.	Physician	M.B.B.S., MD	01	Central Hospital/Allahabad
3.	General Duty	M.B.B.S.	02	Health Unit/Workshop/Jhansi
4.	General Duty	M.B.B.S.	02	Divisional Hospital/Jhansi
5.	Radiologist	M.B.B.S., PG Degree (Radiology)	01	Divisional Hospital/ Jhansi
6.	General Duty	M.B.B.S.	01	Health Unit/Gwalior
7.	General Duty	M.B.B.S.	01	Health Unit/BAAD
8.	General Duty	M.B.B.S.	01	Health Unit/Agra Fort
9.	General Duty	M.B.B.S.	01	Sub Divisional Hospital, Tundla
<b>Total =</b>			<b>11</b>	

Reservation will be as under:-  
SC-02 ST-02 OBC-02 General-05 Total=11

**Date, Time & Venue of Walk-in-Interview :** Conference Hall, General Manager Office Complex, Subedarganj, Allahabad on **30.04.2013 (Tuesday)** from 10.00 A.M. for other than retired railway doctors & on **01.05.2013 (Wednesday)** from 10.00 A.M. for retired Railway doctors.

**Note:-** (i) Candidate must submit their applications in duplicate copies on the prescribed and enclosed proforma latest by 9.30 A.M. on **30.04.2013** (for other than retired Railway Doctors) and by 09.30 AM on **01.05.2013** (for retired Railway Doctors).  
(ii) It is made very clear that no applications from other than retired Railway Doctors will be accepted on **01.05.2013**.  
(iii) In case the No. of candidates in any particular categories i.e. other than retired Railway doctors or retired Railway doctors is more and they cannot be interviewed on the nominated day, they will be interviewed on the next working day/days. As such the candidates should make their own stay arrangement for a period of 2-3 days and come prepared accordingly.

**Remuneration for other than retired Railway doctors:-** Rs.39,400/- for General Duty Doctor and Rs.46,800/- for Specialist Doctors per month, fixed if Govt. accommodation is not provided. If Railway accommodation is provided an amount equivalent to the sum of House Rent Allowance and License Fee of the accommodation provided will be deducted.  
**Remuneration for retired Railway Doctors:** Rs. 46,000/- per month fixed (subject to the condition that remuneration + pension drawn by retired Railway doctor should not exceed the last pay drawn), if Govt. accommodation is not provided. If Railway accommodation is provided an amount equivalent to House Rent Allowance payable to a fresh entrant to Group 'A' Jr. Scale and license fee of the Railway accommodation so provided shall be deducted from the monthly remuneration payable to the CMP.

**Age for other than retired Railway doctors:-** Candidate should not have completed more than 50 years as on **01.01.2013**. However, age relaxation of 5 years for SC/ST and 3 years for OBC candidates is admissible.  
**Age for retired Railway doctors:-** Candidate should not have completed more than 65 years as on **01.01.2013**.

**Terms and condition of other than retired Railway doctors:-** The engagement of Doctors would be on contract basis initially for a period of one year which is extendable on annual basis upto a period of 08 years as per administrative requirements on the basis of assessment of performance of CMPs. However, the services of these doctors can be terminated before the expiry of one year on either side after giving 15 days notice. Railway Administration will be at liberty to terminate the contract of the doctor with immediate effect by paying Honorarium in lieu of 15 days notice period if the circumstances so warrant. The services rendered as contract doctor is a stop gap arrangement and will not have any bearing in respect of consideration of their period in case of regular selection through UPSC. It will also not confer any right for regularization or permanent absorption in the Railways.  
**No private practice is allowed.**  
**Terms and condition of retired Railway doctors:-** The engagement of retired Railway doctors as CMPs shall be for a maximum of two terms of one year each and for each term of one year, a fresh contract shall be entered. The contract shall be entered into for a period of one year or less from the date of entering into the contract. Period of contract shall not be extendable on any grounds. However, the Railway administration shall reserve the right to enter into fresh contract with the retired Railway doctors for another term. The engagement shall purely be on contract basis for a period of one year or till the regular incumbent joins or attaining the age of 65 year whichever is earlier. The retired Railway doctor engaged as Contract Medical Practitioner shall not have any claim or right for his/her continuity in service or automatic extension of the term of contract. During the validity of the contract, the CMP shall be at liberty to terminate the contract for betterment of his/her career or on any other grounds by giving 15 days notice to the Railways. The contract can also be terminated by the Railways at any time during the contract by giving 15 days notice without assigning any reason whatsoever. Contract shall

also be terminated if the CMP is found to be mentally or physically incapacitated.  
**No private practice is allowed.**  
**Note:-** (i) The contract Doctors shall not be entitled for Railway quarter etc. as a matter of right. However, if available, they will be provided accommodation. The detailed instructions with regard to their duties while on contract with the Railways shall be given to them in the event of their selection along with the offer of engagement.  
(ii) Willing candidates should bring their application form along with Original and Attested copies of all Certificate & Mark Sheets, duly filled up on the prescribed format with them. No TA/DA is admissible for this interview.  
(iii) The offer of engagement to the selected candidates shall be issued subject to the availability of vacancy as per requirement in Hospitals/Health Units located at different station on as is where is basis. Any subsequent request for a change of station shall not be entertained. However, administration has right to change the place of posting as per administrative needs. The CMP Specialist Doctors so selected shall also have to carry out general duties as and when required by Railway Administration besides their speciality work.  
(iv) If specialists are not found on the post, the post will be filled up by General duty Medical Practitioners.  
(v) The places of notified vacancies may be changed as per requirement.  
(vi) The notification can be downloaded from N.C. Railway website **www.ncr.indianrailways.gov.in**

**Application format for retired railway doctors/other than retired Railway doctors (Kindly indicate).....**  
Application for the post of Specialist or General Duty Doctor (Kindly indicate):.....  
The General Manager (P)  
Headquarters Office, North Central Railway,  
Subedarganj, Allahabad.

1. Name (In block letters).....
2. Father/Husband's Name (in block letters).....
3. Permanent address:.....
4. Postal Address (with DOT phone & Mobile No., if any).....
5. Date of birth:.....Age as on 01.01.2013 (.....Days.....Months.....Years).....
6. Category to which belongs i.e. SC/ST, OBC, UR (Please write).....
7. Nationality:.....
8. Have worked in Railway as a CMP over Indian Railways, if yes, give details ( To be filled up by other than retired Railway doctors only) .....
9. Educational/Professional Qualifications:

Examination	Year of passing	Medical College/University	No. of Attempts	Percentage of Marks
High School/Equivalent				
Inter Mediate/Equivalent				
M.B.B.S. Part I				
M.B.B.S. Part II				
M.B.B.S. Part III				
Aggregate % in M.B.B.S.				
PG (Kindly indicate discipline).....				

10. Registration No. of Medical Council.....State.....  
11. Experience, if any.....  
12. Attested documents required along with the original are as under:-  
i) One recent passport size photographs  
ii) Certificate indicating the Date of Birth (High School/Equivalent certificate)  
iii) M.B.B.S. Degree with marks sheets (All parts) and Certificate of any higher Medical Qualifications, if any, of Recognized University. (For the candidates applied for General Duty Doctors)  
iv) Mark sheets and Certificate of PG along with M.B.B.S. Degree with marks sheets of all parts (For the candidate applying for Specialist Doctors)  
v) House job certificate, if any  
vi) Certificate in support of caste in case of SC/ST & OBC issued by the appropriate authority  
vii) Medical Council Certificate  
viii) Internship Certificate  
ix) Attested copy of Pension Payment Order (PPO) in case of retired Railway doctors only.

I hereby declare that all the statements made in this application are true, complete and correct to the best of my knowledge and belief. I understand that in the event of any information given herein, if found false or incorrect or concealed the contract will liable to be terminated and any civil/criminal legal action can be taken against me for this. I understand that I am not eligible for any TA/DA for this interview.

Place: \_\_\_\_\_  
Date: \_\_\_\_\_  
**Signature of the Candidate**  
EN 50/32 "Serving Customers with a Smile" 163/13 (R)

**Government of India**  
**Ministry of Consumer Affairs, Food & Public Distribution**  
**Department of Food & Public Distribution**

**Indian Grain Storage, Management & Research Institute**  
Post Box No.- 10, Hapur-245101  
Tel. 0122-2316601, 2316553, 2316618, 2316648 FAX-0122-2316601  
No. A-12021/2/E/IGMRI/94

Services of suitable candidates are required for the post of **Assistant Group 'B' Non Gazetted** in the PB-II Rs. 9300-34800/- plus GP Rs. 4200/- in the Office of the **Director, Govt. of India, Ministry of Consumer Affairs, Food and Public Distribution, Dept. of Food and Public Distribution, Indian Grain Storage Management and Research Institute, Meerut Road, Hapur(U.P)-245101** on transfer on deputation basis as per details given in Annexure-I. The pay of the Officer selected to the post will be regulated in accordance with Min. of Finance, Govt. of India OM No.1(11)/E/3(B)/75 & Department of Personnel & Training OM No.2/12/87-Estt.(Pay-2) dated 28.4.1988 as amended from time to time. The application routed through proper channel in duplicate in the prescribed Proforma given in Annexure-II and must be accompanied by the complete and up to date ACRs for the last five years with vigilance clearance certificate **within 60 days** from the date of publication of this advertisement.  
Application must be sent to the **Director, Indian Grain Storage Management & Research Institute, Meerut Road, Hapur (U.P)-245101** by Registered/speed post only.  
The applicants will not be permitted to withdraw their applications and the application of the officer who is willing/eligible and can be relieved immediately on selection be forwarded by the Office/Department concerned.

( **Dr. S. Gupta** )  
**Director**  
**ANNEXURE-I**

1. Designation of Post - Assistant
2. Place of posting -Hapur (U.P)
3. No. of posts -One
4. Classification of post & Pay scale-Gp. 'B' Non Gazetted PB-II Rs. 9300-34800 GP Rs. 4200/-

**DEFENCE INSTITUTE OF ADVANCED TECHNOLOGY**  
(Deemed University), Girinagar, Pune-411 025 ISO 9001 Certified Institute  
(An Autonomous Organisation fully funded by Department of Defence Research & Development, Ministry of Defence)  
(Telephone No. (020) 24304037/24304035/24389550)

ADVT NO.01-2013/JRF-SRF-RA/DIAT(DU) Date : 26<sup>th</sup> Feb 2013  
1. A 'Walk-in-Interview' will be held at this Institute on **26th March 2013** at 1000 hrs for selection of suitable candidates for the positions of JRF, SRF, & RA in a DRDO Sponsored project entitled "DRDO-DIAT programme on Nano-materials". The positions are temporary and it is initially for a period of 03 years.  
2. It may please be noted that offer of Fellowship does not confer on the Fellows any right for absorption in DIAT (DU), Pune.  
3. For further details/eligibility conditions for selection, please visit the Institute's Website **www.diat.ac.in**

**EN 50/37**

5. Eligibility conditions-Transfer on deputation from Upper Division Clerks with 3 years regular service under Govt. of India in the PB-I Rs. 5200-20200 plus GP Rs. 2400/- and having experience in Accounts/Establishment & budget matters.  
6. Period of deputation - Initially for a period of 2 years which may be curtailed or extended as per requirement of the office.

- ANNEXURE-II**
1. Name (in capital letters)
  2. Designation
  3. Educational qualification
  4. Experience
  5. Date of birth
  6. Date of joining Govt. service
  7. Date from the working in the present grade
  8. Date of retirement
  9. Name of the organization/office where employed

( **Signature of the applicant** )  
Certificate to be recorded by the Employer (1) Certified that particulars of the applicant have been verified from the service records and found correct. It is certified that no disciplinary proceeding either pending or contemplated against the officer. Integrity of the officer is also certified.  
**Signature of head of office with seal**  
**EN 50/45**



BHASKARACHARYA COLLEGE OF APPLIED SCIENCES (UNIVERSITY OF DELHI) SECTOR-2, PHASE-I, DWARKA, NEW DELHI-110075, Telefax: 25087597 Website : www.bcacs.du.ac.in

Applications on the prescribed form are invited up to 2nd April 2013 along with application fee of Rs.100/- for the following posts in the College.

Table with columns: S. No., Name of the post and scale of pay, Nature of the post, Total No. of posts, UR, SC, ST, OBC, Pay Band & Grade Pay, Age Limit. Includes posts like Computer Programmer, Scientific Assistant, etc.

Details regarding prescribed Educational Qualification, Experience, Age Limit, etc. and the application form is available on the college website bcacs.du.ac.in. PRINCIPAL EN 50/49



FOREST RESEARCH INSTITUTE (DEEMED) UNIVERSITY DEHRA DUN - 248 195 (Under Sec 3 of the UGC Act 1956) (vide Notification No.F.9-25/89-U.3 dated 6-12-1991)

ADMISSION ANNOUNCEMENT-2013

I. MASTER OF SCIENCE COURSES Last date of Form Submission : 12th April, 2013 Date of Online Admission Test 2013 : 12th May, 2013

The dates may be changed at the discretion of the university authorities. a) M.Sc. Forestry (38 Seats): Eligibility: Three years Bachelor's degree in science with at least one of the subjects namely Botany, Chemistry, Geology, Mathematics, Physics, Zoology or a Bachelor's degree in Agriculture or Forestry.

b) M.Sc. Wood Science & Technology (38 Seats): Eligibility: Three years Bachelor's degree with Physics, Mathematics and Chemistry or B.Sc. degree in Forestry. c) M.Sc. Environment Management (38 Seats): Eligibility: Three years Bachelor's degree in any branch of basic or applied Sciences or Bachelor's Degree in Forestry or Agriculture or BE/B.Tech in Environment Science.

d) M.Sc. Cellulose & Paper Technology (20 Seats): Eligibility: Three years Bachelors degree in Science with Chemistry as one of the subjects or BE/B.Tech. (Chemical or Mechanical Engineering). The 2nd year of this course is likely to be conducted at Central Pulp & Paper Research Institute (CPPRI), Saharanpur.

II. PERCENTAGE OF MARKS (in the qualifying examination): For (a) (b) (c) & (d) CANDIDATES having 50% or above marks in general category and 45% marks for Scheduled Castes/Scheduled Tribes may apply.

III. CENTRE OF EXAMINATION: (In 38 Cities) Online Admission Test would be held at - Uttarakhand (Dehradun, Haldwani, Garhwal); Delhi (New Delhi); West Bengal (Kolkata); Madhya Pradesh (Bhopal, Jabalpur); Uttar Pradesh (Lucknow, Allahabad, Agra, Meerut); Himachal Pradesh (Shimla); Karnataka (Bangalore); Gujarat (Ahmedabad, Baroda); Maharashtra (Mumbai, Pune); Kerala (Trivandrum, Thrissur); Assam (Jorhat, Guwahati); Rajasthan (Jodhpur, Jaipur); Tamilnadu (Coimbatore, Chennai); Jharkhand (Ranchi); Bihar (Patna, Muzaffarpur); Haryana (Gurgaon, Chandigarh); Punjab (Jalandhar, Ludhiana); Orissa (Bhubaneswar, Sambalpur); Andhra Pradesh (Hyderabad); Manipur (Imphal); Mizoram (Aizawl); Chattishgarh (Raipur).

IV. RESERVATION: Out of the above, following seats are reserved for: (a) SC and ST: 15% and 7.5% respectively (b) Reservation to OBC: will be provided as per the policy of GOI (c) Handicapped (without mobility restriction & partial deafness): One seat in two courses M.Sc. Forestry, M.Sc. Environment Management (d) ICFRE Employee: 5 seats in M.Sc. Environment Management.

V. HOW TO APPLY: Students can download the application forms from the website http://fri.icfre.gov.in, which are in MS-Word format or apply online. Completed application forms along with a Bank Draft of Rs. 1200/- (Rupees Twelve hundred only) payable at Dehradun in favour of Registrar, FRI (Deemed) University is to be sent at "EXON SOLUTIONS PVT LTD, E-2/5, 2nd Floor, Malviya Nagar, New Delhi-110017". Exon Solutions is an authorized agency for collection of forms and Demand drafts for FRI (Deemed) University. Please also mention the name of course(s) applied for, on the envelope. Provision of Online Registration is also available on the website. Admission Test will be Online Computer based.

Fee for Registration:- Rs. 1200/- (Rupees Twelve hundred only for each course). A candidate wants to apply for one or more courses has to submit fee accordingly (Rs. 1200/- for each course). REGISTRAR FRI (DEEMED) UNIVERSITY 0135-2751826, 2224495 & 2224439 EN 50/53

Continued from page 27

(A) For the posts of JA [Junior Accountant]

1. Officials holding same/analogous posts in various ministries/departments of Central/State Govt./PSUs on regular basis, or 2. LDCs who have rendered not less than eight years of regular service in the grade, or 3. UDCs who have rendered not less than three years of regular service in the grade

(B) For the post of SA [Senior Accountant]

1. Officials holding same/analogous posts in various ministries/departments of Central/State Govt./PSUs on regular basis, or 2. JA/Auditors who have rendered not less than three years of regular service in the grade.

(C) For the post of ACAO [Assistant Communication Accounts Officer]

1. Officials holding same post in various ministries/departments of Central/State Govt./PSUs on regular basis 2. Officers who have qualified in SAS or equivalent and working as JAOs

(D) For the post of Sr. C.A.O/ C.A.O. [Sr. Communication Accounts Officer/ Communication Accounts Officer]

1. Officials holding same in various ministries / departments of Central/ State Govt./PSUs on regular basis 2. Officers who are working as AAOs and having service of more than 5 years on regular basis in that grade

(E) Maximum age limit for appointment by deputation shall not exceed 56 years as on the closing date of receipt of applications.

(F) Working knowledge of computers The applicants to all the above posts should have sufficient exposure to basic working knowledge on computers in all the modules of MS Office including the knowledge of Internet to send/receive e-mails.

Annexure 'B' APPLICATION FORM

- 1. Name of the official
2. DOB
3. Educational Qualification
4. Present Post held/Date from which working
5. Unit in which working [specify Ministry/Dept]
6. Present Pay
7. Working Experience including extent of working with computer
8. Service particulars from the date of initial appointment (along with brief of duties performed)

Declaration

1. I, hereby declare that my posting on deputation as in the Dept. of Telecom shall not derive any right to me to claim seniority in the said post in respect of the services rendered by me on deputation.
2. I will not claim absorption in the DoT in the said post.
3. I am liable to be repatriated to my parent organisation for any inaccuracies in the details noted above or for contravention of any provisions in the rules/orders governing the deputation.

Date:
Place: Signature of the applicant

CERTIFICATE TO BE RECORDED BY THE HEAD OF OFFICE WHILE FORWARDING THE APPLICATION
1. Certified that the particulars given by the applicant are true and



NATIONAL HOUSING BANK

(Wholly owned by the Reserve Bank of India) Head Office: Core 5-A, 4th Floor, India Habitat Centre, Lodhi Road, New Delhi-110 003

Recruitment of Officers in Junior Management Grade Scale I (Assistant Managers)

National Housing Bank is the apex Financial Institution in the country for housing, set up under an Act of Parliament and is a wholly owned subsidiary of Reserve Bank of India. The Bank is the regulator for Housing Finance Companies as also a significant provider of development finance. The Bank seeks to catalyze institutional funds to reduce housing shortage in the country through various development initiatives particularly rural housing and housing for economically weaker sections in urban areas. The Bank is mandated for the holistic development of the housing finance market in the country.

The Bank is an officer oriented, professionally managed institution with headquarters in Delhi and offices in Mumbai, Hyderabad, Bangalore, Chennai, Lucknow, Patna and Bhopal with plans to open a few other offices in the country over the next few months. The Bank seeks to promote excellence in its operations through research and analysis and adopting contemporary work practices and technology. The Bank has embarked on a number of path breaking initiatives which has attracted national and international attention. The Bank offers a modern, congenial, professional work environment and career opportunities for qualified, energetic, sincere men and women.

To meet the new challenges NHB requires talented and committed young professionals in junior management cadre. Candidates are advised to apply ONLINE from 15.03.2013 to 02.04.2013 only, through Bank's web site www.nhb.org.in after carefully going through all the instructions contained in this application and general instructions given in this advertisement. No other means/ mode of Application will be accepted.

Important Dates table: Opening of Online Registration Gateway (15.03.2013), Closing of Online Registration Gateway (02.04.2013), Date of Online Examination (05.05.2013)

Candidates may download their Call letter from the web site from 25.04.2013 to 05.05.2013 (i.e. till the date of examination) onwards by entering their registration number and password.

Table with columns: Name of Posts, Pay Scale, Post code, No. of vacancies, Reserved For (SC, OBC). Assistant Manager (General) - Scale I

TOTAL # The total number of vacancies mentioned above are provisional and may vary depending upon actual requirement of the Bank. NHB reserves the right to draw wait lists of candidates and consider such wait listed candidate(s) for meeting actual requirement.

Besides emoluments as per the pay scale given above, all the posts indicated above will carry other facilities like pension under new Pension Scheme, gratuity, leave fare concession, reimbursement of medical expenses, reimbursement of vehicle maintenance expenses / allowance, vehicle loan, housing loan etc. as per the Bank's rules. Unfurnished Bank's residential accommodation may also be provided at the discretion of the Bank subject to availability of accommodation on payment of license fee as determined by the Bank from time to time. The detailed advertisement is available on the Bank's website: http://www.nhb.org.in EN 50/93

National Backward Classes Finance & Development Corporation (A Govt. of India Undertaking)

EMPLOYMENT NOTICE

NBCFDC, a Government of India Undertaking under the aegis of Ministry of Social Justice & Empowerment, under the Companies Act, 1956 as a Company of section 25 Company with an objective to promote economic and developmental activities for the benefit of Backward Classes living below double the poverty line, invite applications from eligible candidates to fill up following posts on direct recruitment/ deputation basis:

Table with columns: S. No., Name of Post, Scale of Pay (Revised IDA), No. of Post. Includes General Manager (P & A), Dy. General Manager (Finance), etc.

Note: For application form and other details of Pay Scales, eligibility criteria etc., please log on www.nbcfdc.org.in Completed applications in all respects should reach NBCFDC within 21 days of publication of this advertisement. The Management reserves the right to accept or reject any application without assigning any reason. EN 50/76

ment to the post applied for. No major/minor penalty is in force or current against the official. 5.Recommendations: Date: Place: Signature of the Head of office with office seal and Telephone no. EN 50/10

have been verified from the service records. 2. The applicant, if selected, will be relieved immediately. 3. Copies of ACR/APAR for the last five years are enclosed. 4. No disciplinary/vigilance case is pending or contemplated against the official. There is nothing against the applicant which makes him/her ineligible for consideration for appointment to the post applied for. No major/minor penalty is in force or current against the official. 5.Recommendations: Date: Place: Signature of the Head of office with office seal and Telephone no. EN 50/10

HIGH COURT OF GUJARAT, SOLA, AHMEDABAD

RECRUITMENT OF LEGAL ASSISTANTS No. RC/1320/2013

The High Court of Gujarat invites 'On-line Applications' from the Candidates with Degree in Law, for filling up 11 (6 existing + 5 future) posts in the cadre of Legal Assistants on the establishment of this High Court, on purely ad-hoc and contractual basis, on a fixed remuneration of Rs.15,000/- p.m., initially for 11 months (extendable on periodical basis upto a maximum period of 3 Years). The 'Detailed Advertisement' and 'Cash Voucher' Form, shall be made available on the Gujarat High Court Website www.gujarathighcourt.nic.in OR http://hc-ojas.guj.nic.in from 11/03/2013 onwards and also displayed on the Notice Boards of Gujarat High Court / District Courts / Taluka Courts and National Law Universities and all Law Colleges in the State. The process of filling up of On-line Applications on the Official Web-site shall begin from 16/03/2013 (12:00 Noon) & close on 31/03/2013 (12:00 Midnight).

High Court of Gujarat, Sola, Ahmedabad. Sd/- (P.R. Patel) Registrar (Recruitment & Finance) Date : 04/03/2013. EN 50/80

MINERAL EXPLORATION CORPORATION LTD. (A GOVERNMENT OF INDIA ENTERPRISE) (AN ISO 9001-2008 CERTIFIED COMPANY)

Dr. Babasaheb Ambedkar Bhawan, Seminary Hills, Nagpur- 440006 Phones : 0712-2510302, 2510310, 2510311 FAX : 0712-2510548 E-mail : mecl\_ngp@sancharnet.in Website : www.mecl.gov.in

Mineral Exploration Corporation Limited (MECL) a profit making Public Sector Undertaking under the Ministry of Mines, Government of India, requires bright, result oriented, experienced personnel with initiative and enterprise for its Corporate Office at Nagpur and Projects situated all over India. Excellent career growth opportunities are open to the deserving candidates. Applications are invited from Indian Citizens for the posts of Deputy General Manager(P&A){1 General}, Deputy General Manager (Materials) {1 General}, Senior Manager(P&A) {1 General}, Senior Manager (Finance) {1 General}, Manager(Finance){1 General & 1 OBC(Non Creamy Layer)}, Manager (Legal Services){1 General}, Assistant Manager(Finance){2 General}, Assistant Manager (Mineralogy) {1 General}, Assistant Manager(Geo Tech/Engg. Geology){1 General}, Accounts Officer{ 2 General, 1 SC and 1 PHP(OH)}(Inter changeable to Hearing Handicapped (HH)), Legal Officer{1 General and 1 OBC(Non Creamy Layer)}, Officer Trainees (HR) {1 General, 1SC, 1 ST and 1 OBC(Non Creamy Layer)}, Foreman (Drilling){1 ST and 1 OBC(Non Creamy Layer), and Technician (Drilling)(2 ST). Note :- Management reserves the right to increase / decrease or not to fill up all or any of these vacancies or cancel /restrict/enlarge/ modify/alter the recruitment process, if need so arises, without issuing any further notice or assigning any reason what so ever. The interested candidates may log on Company's website www.mecl.gov.in for detailed advertisement.

Advt. No. 01/Rectt./2013 General Manager (P&A) EN 50/35

**इंजीनियरिंग प्रोजेक्ट्स (इंडिया) लि.**  
(भारत सरकार का उद्यम)



**ENGINEERING PROJECTS (INDIA) LTD.**  
(A Government of India Enterprise)

EPI a 'Mini Ratna' Public Sector Enterprise under the aegis of Department of Heavy Industry with turnover of more than ₹ 1000 Crores engaged in execution of wide range of multi facet projects on turnkey basis in Power, Steel, Industrial, Civil & Infrastructure Sectors requires Engineers & Architects to be appointed on regular basis for the following posts:

Sl. No.	Post	Level	No. of Posts	Scale of Pay (Industrial DA Pattern) (Rs.)	Qualification	Minimum Experience	Upper Age limit as on (Last date of Submission of application)
1.	Sr. Manager (Architect)	E-4	1	29100-54500	Degree in Architecture or equivalent (minimum 55% marks)	Minimum 9 years post qualification executive experience with minimum 2 years in a next below grade in an organization of repute.	40 years
2.	Assistant Manager (Architect)	E-1	1	16400-40500	Degree in Architecture or equivalent (minimum 55% marks)	2 Years post qualification executive experience with minimum 1 year in next below grade in an organization of repute.	30 years
3.	Assistant Manager (Electrical)	E-1	5	16400-40500	BE/B. Tech or AMIE or equivalent in the electrical discipline (minimum 55% marks)	2 Years post qualification executive experience with minimum 1 year in next below grade in an organization of repute.	30 years

★ In addition to pay, DA, HRA / Bachelor accommodation at Project Site, EPF, Medical facilities, Perquisites and PRP etc. are also admissible as per Rules of the Company.

★ Relaxable by 5 years for SCs/STs and 3 years for OBC's and as per Govt. directives for ex-servicemen and physically handicapped.

★ For the above post, age will be relaxed in case of deserving candidate.

Applicants working in Govt. Deptts./ PSUs / Autonomous bodies must send their application through proper channel or produce 'No Objection Certificate' at the time of Interview and also to produce original certificate of age, qualification, experience, cast certificate etc. failing which, the applicants will not be interviewed and no fare shall be paid. Outstation applicants for interview shall be paid to & fro 3tier AC rail/bus fare by the shortest route, on production of ticket/ticket No./documentary proof.

**Reservation:** Reservation of posts for SCs/STs/OBCs and others shall be as per Govt. directives. Person with disability (PWD) are encouraged to apply.

No. of vacancies are tentative and subject to change. EPI reserves the right to shortlist the candidates to be called for interview on the basis of qualification, experience and other parameters.

Last date of submission of application is "Two (2) weeks from the date of publication of advertisement". EPI will not consider any application received after this date.

For further details please visit our [website www.epi.gov.in](http://www.epi.gov.in)

**Application sent by E- Mail will not be considered.**

While applying candidate should indicate clearly on the envelop "Application for the post of \_\_\_\_\_"

EN 50/107



**Government of India  
Ministry of Defence**

**Ordnance Factory Board**

10-A, S.K. Bose Road  
Kolkata-700001

Advertisement No. 13/06/2012-A/HRD

Subject: Induction of Trade Apprentices under the 'Apprentices Act' 1961 and 'Disabilities Act' 1995 in Ordnance & Ordnance Equipment Factories- 53<sup>rd</sup> Batch. "On-line" application is invited from Indian citizens for Induction as Trade Apprentices in Non-ITI & ITI categories in Ordnance & Ordnance Equipment Factories, located in different States of India.

**ELIGIBILITY QUALIFICATION:**

- For Non-ITI category: Passed "Madhyamik" (Class X standard or equivalent), with minimum 40% marks in Aggregate with 40% marks in each of Mathematics & Science.
- For ITI category : Passed Trade Test from an Institute recognized by NCVT or SCVT or any other authority specified through Gazette Notification of Ministry of Labour & Employment.

**QUALIFYING AGE:** 14 to 22 years (as on 01-10-2012)

Relaxation in upper age limit is permitted for the candidate belongs to SC/ST: 5 years, OBC: 03 years, PH/PC: 10 years. For ITI candidates, upper age limit will be relaxed by the period of training already undergone as per the normal duration of NCVT/SCVT, in the relevant trade.

**SUBMISSION OF ON-LINE APPLICATIONS STARTS FROM:** 04-03-2013 (from 10:00 am)

**LAST DATE OF SUBMISSION OF ON-LINE APPLICATION:** 27-03-2013 (up to 05:00 pm)

For detail, visit Ordnance Factory Board Website <http://www.ofbindia.gov.in>

davp 10201/11/2848/1213

EN 50/104

**Recruitment Notice  
File No. 1-07/2011-Estt.  
Government of India**

**Ministry of Agriculture**

(Department of Agriculture and Cooperation)  
Southern Region Farm Machinery Training and Testing Institute

Tractor Nagar, Garladinne- 515 731, District: Anantapur (A.P.)

**Second Advertisement**

Applications are invited on plain paper for one post of Senior Technical Assistant, which is reserved for Orthopedically Handicapped category. The other details of the post are as follows:

1. **Scale of pay :** PB-2 of Rs.9300-34800 + Grade Pay Rs.4200
2. **Age :** 18-30 years as on last date for receipt of applications. However, age relaxation is applicable as prescribed by the Government for Physically handicapped.
3. **Educational qualification :** Degree in Mechanical or Agricultural Engineering from a recognized University or Institute or equivalent.

4. **Duties :** 1. To conduct the **laboratory and field tests** on Power tillers (also known as walk-behind-tractor) and other Agricultural Equipments and Machinery and record the data during test and compile the draft test reports.

2. To organize Theoretical and Practical classes for various categories of trainees on Selection, Operation, maintenance, calibration, repair and management of Tractors/Power tillers/Combine Harvesters and other Agricultural Equipments and Machinery.

3. Responsible for the **repairs and maintenance** of vehicles and other machinery of the Institute.

4. **To demonstrate** the safe operation techniques of Tractors/Power tillers/Combine Harvesters and other Agricultural Equipments and Machinery in the FARM.

5. To undertake the responsibility of Hostel Superintendent as and when required.

6. To assist in designing the training programmes/ schedule.

7. To assist in reviewing the BIS/ISO/OECD and other international standards.

8. To assist in formulation of various test codes/specified standards/etc.

9. Other duties as assigned by Director for smooth running of Institute.

5. **Place of work :** Tractor Nagar, Garladinne, Distt. Anantapur (A.P.) with All India Service Liability.

Eligible persons may send their applications with self attested copies of testimonials of age, educational qualifications, experience, physically handicapped etc. issued by respective competent authority to the Director, Southern Region Farm Machinery Training and Testing Institute, Tractor Nagar, Garladinne- 515731, Distt : Anantapur (A.P.) with full particulars Viz. Name, Father's Name, Date of Birth, Address, Qualifications, Experience, Category/Caste, Physically handicapped, etc. so as to reach this Institute by **02.04.2013**. Applications received after due date or incomplete applications or lacking any of the documents, will outrightly be rejected.

May please also login to [www.srfmtti.dacnet.nic.in](http://www.srfmtti.dacnet.nic.in).

(P.K. PANDEY)  
DIRECTOR(I/C)

EN 50/44



Government of NCT of Delhi  
**AMBEDKAR INSTITUTE OF ADVANCED COMMUNICATION TECHNOLOGIES AND RESEARCH**  
Geeta Colony, Delhi - 110031

Phone No.: (011) 22048046 FAX No.: (011) 22048044  
Website: [www.ait.delhigovt.nic.in](http://www.ait.delhigovt.nic.in), [www.aictr.ac.in](http://www.aictr.ac.in)

**Applications are invited for Teaching-Cum-Research Fellowships (TRF's) and Junior Research Fellow(JRF)**

Ambedkar Institute of Advanced Communication Technologies & Research (AIACTR), Geeta Colony, Delhi is one of the Technical Institutes established by the Govt. of NCT of Delhi with well equipped modern laboratories, well laid down 'Profile of Growth' and strong commitment for achieving excellence in Technical Education. It is one of the leading engineering institutes under the umbrella of Guru Gobind Singh Indraprastha University.

**Applications are invited for the following-**

- (i) Three posts of Teaching cum research fellowships (TRF) with a fellowship of ₹20,000/-pm for first two years with ₹20,000/- per annum contingency grant and ₹25,000/-pm for the next two years with ₹25,000/-per annum as contingency grant.
- (ii) Two posts of Junior Research Fellows (stipend of ₹16,000/-pm and contingent grant of ₹20,000/- per annum) for first two yrs and extendible to SRF for the next three yrs as per rule.

Both IRFs and JRFs, thus, selected will have opportunity to pursue their Ph.D and will have to assist in teaching activities of UG and PG Courses at AIACTR.

**Areas of research will be:**

1. Microwave and RF Circuits and Systems
2. Microwave Antennas and Phased Array Design
3. Signal Processing
4. Analog Microelectronics and Signal Processing
5. Physics/Materials Science/Nano Materials

**ELIGIBILITY CRITERIA**

- (i) **For TRF:** First Class (60% and above) B.Tech. in Electronics and Communication Engineering/ M.Sc (Physics/ Applied Physics/ Materials Science) and First Class (60% and above) M.Tech. in relevant specialization.
- (ii) **For JRF:** First Class (60% and above) M.Sc (Physics/ Applied Physics/Materials Science/Chemistry/App. Chemistry) and age not exceeding 28 Yrs as on closing date.

**HOW TO APPLY:-**

Application Form can be downloaded from the institute's website [www.ait.delhigovt.nic.in](http://www.ait.delhigovt.nic.in) and must reach the Institute along with a Demand Draft of ₹500/- drawn in favour of "Principal, AIACTR" and payable at Delhi. The applications must be addressed to the Principal, Ambedkar Institute of Advanced Communication Technologies and Research, Govt. of NCT of Delhi, Geeta Colony, Delhi - 110 031.

**Last date for Applications is 29<sup>th</sup> March 2013**

**Short listed candidates will be called for interview as per notice which will be posted on the institute's website by 19<sup>th</sup> April 2013.**

Principal

Ambedkar Institute of Advanced Communication Technologies and Research

EN 50/106

DIP/2251/2012-13

**FIRST PROVISIONAL PART PANEL OF RRC/SER FOR ERSTWHILE GR. 'D' CATEGORY**

REF : EMP NO.: SER/RRC/2010 DT. 15.12.2010

Railway Recruitment Cell, South Eastern Railway declared the provisional panel of 140 (VH-28, HH-46 & OH-66) PWD candidates and 1501 (UR-142, OBC-685, SC-359 & ST-315) non-PWD candidates for appointment in South Eastern Railway in PB-1 ₹ 5,200/- – ₹ 20,200/-having GP ₹ 1,800/- for those candidates who have been declared medically fit in prescribed medical classification up to 23.02.2013.

The provisional empanelment status of PWD and non-PWD candidates have already been published in RRC/SER website : [www.rrcser.in](http://www.rrcser.in) and candidate may check their status by submitting roll no. on the website.

**Candidates should note that**

1. Allotment of post, Unit/Division and other pre-requisite formalities shall be commenced by Office of Chief Personnel Officer/South Eastern Railway, Garden Reach, Kolkata and shall be subject to completion of all formalities preceding appointment in Railway Services, whereby, offer of appointment shall be despatched by respective Units/Divisions.
2. Appointment shall be subject to availability of vacancies and medical fitness of the candidates for the post.
3. Merit/Rank shall be declared at a later stage, as this is a provisional part panel.
4. This is a provisional part panel and result of some candidates has not been declared for pending medical fitness (A-2 and below up to C-1 as per notified post) and other reports like forensic examination report etc. and shall be declared at a later stage if found fit/ authentic.
5. While due care has been taken in preparing the result, Railway Recruitment Cell reserves the right to make amendments to the provisionally declared panel at any subsequent stage.
6. RRC/South Eastern Railway reserves the right to declare any candidate successful or delete his name from the notified result/panel at any stage of the selection procedure and subsequently, if any discrepancy or malpractice is noticed or brought to the notice of RRC at any stage and the decision of the RRC in the matter shall be final. Candidature is also liable to be rejected in case of fraud/proxy by the candidates at any stage of selection procedure and the decision of RRC/South Eastern Railway in the matter shall be FINAL.
7. RRC will not entertain any individual query in this regard.

**Important:** Beware of unscrupulous persons who may misguide the candidates with false promises of getting them selected for the job on illegal consideration. The recruitment process in RRC/SER examination is fully computerized and the selection is based on the merit of the candidate.

(PR-1364)

Dy. Chief Personnel Officer (Rectt.)



**South Eastern Railway**  
We serve with a smile

EN 50/108



**INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR**  
VGEC Campus, Chandkheda, Ahmedabad: 382 424.

Advertisement No. AO/Rectt./02/2012-13

The Institute invites applications for the following positions to be filled on deputation basis from qualified engineers with experience in construction of large building projects, while working for Central Government/ State Governments/Public Sector Undertaking/Autonomous Bodies.

- Vacancies:
1. **Superintending Engineer** (Civil, 1 post)
  2. **Executive Engineer** (Civil, 1 post)
  3. **Assistant Engineer** (Civil, 1 post)
  - Assistant Engineer** (Electrical, 1 post)

Complete application in prescribed format must be forwarded through proper channel to the Assistant Registrar (Admin.), I.I.T. Gandhinagar on or before April 1, 2013. However, candidates may send an advance copy to reach the Institute before the last date.

For details of the advertisement, including General Conditions and Application Form, please go to IIT Gandhinagar website: [www.iitgn.ac.in](http://www.iitgn.ac.in) under section: jobs@IITGn, subsection: staff recruitment.

Assistant Registrar (Admin.)

EN 50/102

# STAFF SELECTION COMMISSION



Date of Exam: 10-06-2013(Paper-I) & 18-08-2013(Paper-II)

Closing Date : 12 -04-2013

## NOTICE

### RECRUITMENT OF SUB-INSPECTORS IN DELHI POLICE , CAPFs AND ASSISTANT SUB-INSPECTOR IN CISF AND INTELLIGENCE OFFICER IN NCB EXAMINATION, 2013

#### IMPORTANT INSTRUCTIONS TO CANDIDATES

- Commission will hold an All India Examination for recruitment to the post of Sub-Inspectors in Delhi Police(DP) and Central Armed Police Forces (CAPFs) , Assistant Sub-Inspectors in Central Industrial Security Force (CISF) and Intelligence Officer in Narcotics Control Bureau(NCB) . Graduation from a recognized University or equivalent is the minimum educational qualification. The Examination will comprise of Written Examination in two phases- Physical Endurance Test, Medical Examination and Interview/personality test.
- In view of the anticipated large number of applicants, scrutiny of the eligibility and other aspects will not be undertaken before the Written Examination and, therefore, the candidature will be accepted only provisionally. Candidates are advised to go through the requirements of educational qualification, age, physical standards, etc. and satisfy themselves that they are eligible for the posts, before applying. Copies of supporting documents will be sought only from those candidates who qualify in the Written Examination. When scrutiny is undertaken after the Written Examination, if any claim made in the application is not found substantiated the candidature will be cancelled and the Commission's decision in this regard shall be final.
- BEFORE APPLYING, CANDIDATES IN THEIR OWN INTEREST ARE ADVISED TO GO THROUGH THE DETAILED INSTRUCTIONS CONTAINED IN THIS NOTICE CAREFULLY. THIS NOTICE IS ALSO AVAILABLE ON THE WEBSITE OF THE COMMISSION (<http://www.ssc.nic.in>)**
- Candidates seeking reservation benefits for SC/ST/OBC/Minorities/ EXS must ensure that they are entitled to such reservation as per eligibility prescribed in the Notice. They should also be in possession of the certificates in the format prescribed by Government of India in support of their claim.
- Candidates belonging to the Physically Handicapped category are not eligible to apply for this examination.
- Central Government civilian employees claiming age relaxation should be in possession of a certificate in the prescribed format from their office in respect of the length of continuous service which should be for not less than three years in the immediate period preceding the closing date for receipt of application. They should continue to have the status of Central Government civilian employees from the day of application till the time of appointment on the basis of their performance in this examination to be eligible for such age relaxation.
- FEE: RUPEES ONE HUNDRED ONLY(Rs 100 ) payable through CRF Stamp in case of Off-line or SBI Challan or on-line payment through State Bank of India for on-line applications. Fee is exempted for all Women candidates and candidates belonging to Scheduled Caste, Scheduled Tribe and Ex-Servicemen eligible for reservation as per Govt. orders.**
- CLOSING DATE: 12.4.2013 ( upto 5.00 PM)** For candidates residing in Assam, Meghalaya, Arunachal Pradesh, Mizoram, Manipur, Nagaland, Tripura, Sikkim, Jammu and Kashmir, Lahaul and Spiti District and Pangi Sub Division of Chamba District of Himachal Pradesh, Andaman and Nicobar Islands, Lakshadweep and for candidates residing abroad **19-04-2013 APPLICATIONS RECEIVED LATE WILL BE REJECTED and no correspondence will be entertained in this regard. COMMISSION WILL NOT BE RESPONSIBLE FOR POSTAL DELAY.**
- Only a single application will be entertained. IN CASE OF MULTIPLE ONLINE APPLICATIONS, THE LAST APPLICATION FOR WHICH PART.I AND PART.II REGISTRATION HAVE BEEN COMPLETED WILL BE ACCEPTED. IN THE CASE OF MULTIPLE OFF-LINE APPLICATIONS, THE CONCERNED REGIONAL OFFICE WILL ACCEPT ANY ONE OF THE APPLICATIONS AT THEIR DISCRETION.
- MOBILES AND OTHER ELECTRONIC GADGETS ARE BANNED WITHIN THE PREMISES OF THE EXAMINATION CENTRES. POSSESSION OF SUCH EQUIPMENT WHETHER IN USE OR IN SWITCH OFF MODE, DURING THE EXAMINATION WILL BE CONSIDERED AS USE OF UNFAIR MEANS. CANDIDATURE OF SUCH CANDIDATES WILL BE CANCELLED. THEY WILL BE LIABLE FOR FURTHER ACTION INCLUDING INITIATION OF CRIMINAL PROCEEDINGS AND DEBARMENT FROM COMMISSION'S EXAMINATION UPTO 5 (FIVE) YEARS, AS MAY BE DECIDED BY THE COMMISSION.
- CANDIDATES DESIROUS OF SUBMITTING ON LINE APPLICATIONS MAY DO SO. SUCH CANDIDATES SHOULD RETAIN THEIR REGISTRATION NUMBER ASSIGNED TO THEM ON LINE FOR CORRESPONDENCE WITH THE COMMISSION. THEY SHOULD NOT SUBMIT PRINT OUTS OF THEIR APPLICATION TO THE COMMISSION. **THE FACILITY OF ON-LINE APPLICATION WILL BE AVAILABLE AT WEBSITE <http://SSC online.nic.in> UPTO 10-04-2013 (5:00 PM) FOR PART-I REGISTRATION AND FOR PART-II REGISTRATION UPTO 12-04-2013 (5.00 P.M.).**
- Candidates may contact following Regional Help Lines for clarifications, if any, in respect of filling/submitted applications :
 

(i) SSC(NR) New Delhi	-01164715222, 01165021888, 01124363343, 01124360840
(ii) SSC(CR) Allahabad	- 05322460511,05326541021
(iii) SSC(SR) Chennai	- 09445195946,04428251139
(iv) SSC(WR)Mumbai	- 09869730700,07738422705
(v) SSC(ER) Kolkata	-09477461228,09477461229
(vi) SSC(MPR) Raipur	-09407921504,09407921505
(vii) SSC(KKR) Bangalore	- 08025502520,09483862020
(viii) SSC(NWR) Chandigarh	- 09915509204,09915509331
(ix) SSC(NER) Guwahati	- 09085073593,09707679564
- Candidates **must** carry at least one photo bearing **IDENTITY PROOF** in original such as Driving Licence, Voter Card, Aadhaar Card, Identity Card issued by University/College, Income Tax Pan Card etc to the examination centre, failing which **THEY SHALL NOT BE ALLOWED TO APPEAR FOR THE EXAMINATION.**

F. No. 3/1/2013-P&P-II. The Staff Selection Commission will hold an examination for Recruitment of Sub-Inspector in Delhi Police, CAPFs, Assistant Sub Inspector in CISF and Intelligence Officer in NCB Examination, 2013 on Sunday the 10th June 2013 for Paper-I and 18th August 2013 for Paper-II.

#### Sub-Inspector in CAPFs :

The post carries pay scale of Rs 9300-34800 in Pay Band 2 with Grade Pay of Rs 4200 and is classified as Group 'B' Non-Gazetted, Non-Ministerial as per letter No.I-45023/4/2010-Pers.II dated 29th March 2011 from Ministry of Home Affairs.

#### Sub Inspector in Delhi Police :

The post carries pay scale of Rs.9300-34800 in Pay Band 2 with Grade Pay of Rs. 4200 and is classified as Group 'C' by Delhi Police.

#### Assistant Sub-Inspector in CISF:

The post carries pay scale of Rs.5200-20200 in PB-1 with Grade Pay of Rs.2800/- and is classified as Group 'C'.

#### Intelligence Officer in NCB:-

The post carries pay scale of Rs.9300-34800 in Pay Band 2 with Grade Pay of Rs.4600/- and is classified as Group 'B' Non-Gazetted, Non-Ministerial.

#### Post Code (Preference for Post may be indicated in Application Form )

- |    |  |
|----|--|
| A. | Sub Inspector in Delhi Police                                      |
| B  | Sub Inspector in Border Security Force (BSF)                       |
| C  | Sub- Inspector in Central Industrial Security Force (CISF)         |
| D  | Assistant Sub-Inspector in Central Industrial Security Force(CISF) |
| E  | Sub-Inspector in Central Reserve Police Force (CRPF)               |
| F  | Sub- Inspector in Indo-Tibetan Border Police Force (ITBPF)         |
| G  | Sub Inspector in Sashastra Seema Bal (SSB)                         |
| H  | Intelligence Officer in Narcotics Control Bureau(NCB)              |

Candidates will not be allowed to change/revise the preference subsequently. Therefore, they are advised to indicate the preference of the posts carefully.

#### 2. Vacancies & Reservation :-

##### Vacancies of Sub-Inspector in CAPFs

Name of the Force	Category	UR	OBC	SC	ST	Total
CRPF	Male	107	57	32	16	212
	Female	13	05	03	01	22
ITBP	Male	86	22	13	15	136
CISF	Male	144	76	42	21	283
	Female	17	08	04	02	31
SSB	Male	35	17	09	04	65
	Female	01	00	02	00	03
Total		636	287	167	86	1176

##### Vacancies of Assistant Sub-Inspector in CISF

RANK	Category	UR	OBC	SC	ST	Total	Exs
ASI/Exe.	Male	335	178	99	49	661	80
	Female	39	19	10	04	73	00
	Total	374	197	109	54	734	80

**Note:** Candidates selected for appointment for posts of S.I. in CAPFs & ASI in CISF are liable to serve anywhere in India.

##### Vacancies of Sub-Inspector in Delhi Police

Category	UR	OBC	SC	ST	Total
Open	161	58	29	16	264
Departmental	17	09	05	02	33
Ex-Servicemen	17	09	05	02	33
Total	195	76	39	20	330

**Note I:** Firm number of vacancies in respect of Intelligence Officers in NCB will be determined in due course

**Note II:** The number of vacancies is indicative and may undergo change anytime before declaration of result.

Reservation for SC/ ST/ OBC/ ExS/etc. categories is available as per extant Govt. Orders and as communicated by the departments reporting vacancies. Vacancies for Ex.Servicemen are reserved only for Group 'C' posts and not for Group 'B' posts as per extant Government orders/instructions.

In Delhi Police reservation is available for male departmental candidates, Ex.Servicemen and special categories of Ex.Servicemen as detailed below:-

Out of 10% quota meant for Ex.Servicemen, 50% of such quota will be reserved for the following categories:-

- Having served in the Special Force NSG(Special Action Group)
- Having received a QI "Qualified Instructors" grading in the commando course.
- Officers from the Navy/Air Force who have worked in the specialized commando type units.

Departmental candidate eligible for consideration for the posts earmarked for him means a Constable, Head Constable or an Assistant Sub Inspector enlisted in Delhi Police and has more than five years of continuous service in Delhi Police and otherwise possesses the other qualification prescribed for the post.

Women Departmental Candidates of Delhi Police are eligible only for age relaxation. No reservation is available to them as Departmental candidates.

#### 3. NATIONALITY / CITIZENSHIP :

A candidate must be either :

- a citizen of India, or
- a subject of Nepal, or
- a subject of Bhutan, or
- a Tibetan refugee who came over to India, before the 1st January, 1962 with the intention of permanently settling in India, or
- a person of Indian origin who has migrated from Pakistan, Burma, Sri Lanka, East African Countries of Kenya, Uganda, the United Republic of Tanzania ( Formerly Tanganyika and Zanzibar ), Zambia, Malawi, Zaire, Ethiopia and Vietnam with the intention of permanently settling in India.

Provided that a candidate belonging to categories (b), (c), (d) and (e) above shall be a person in whose favour a certificate of eligibility has been issued by the Government of India.

Continued

A candidate in whose case a certificate of eligibility is necessary will be admitted to the Examination provisionally but the offer of appointment will be given only after the necessary eligibility certificate has been issued to him by the Government of India. Women Departmental Candidates of Delhi Police are eligible only for age relaxation. No reservation is available to them.

**4. (A) AGE LIMITS for the post of Sub-Inspector in Delhi Police, CAPFs, Assistant Sub Inspector in CISF and Intelligence Officer in NCB is 20-25 years.**

**Note I:** The upper age limit is relaxable for Central Government Civilian Employees as per extant Government order.

**Note II:** The crucial date for age-limit is reckoned with reference to 01-01-2013 as per extant Government orders.

**Note III:** Candidates should note that only the Date of Birth as recorded in the Matriculation/Secondary Examination Certificate or an equivalent certificate available on the date of submission of application will be accepted by the Commission for determining the age eligibility and no subsequent request for its change will be considered or granted.

**4. (B) Category-Codes and age relaxation available to different category of eligible candidates, for claiming Age Relaxation as on the date of reckoning .**

Code No.	Category	Age-Relaxation permissible beyond the Upper age limit
01	SC/ST	5 years
02	OBC	3 years
06	<b>For Group ' B &amp; C' posts</b> Ex.Servicemen (Unreserved/General)	03 years after deduction of the military service rendered from the actual age as on the closing date.
07	Ex.Servicemen (OBC)	06 years( 3 years + 3 years) after deduction of the military service rendered from the actual age as on the closing date
08	Ex.Servicemen (SC/ST)	08 years (3 years+5 years) after deduction of the military service rendered from the actual age as on the closing date.
12	For Group 'B' posts (i) Central Government Civilian Employees (General/unreserved) who have rendered not less than 3 years regular and continuous service as on Closing date	05 years.
13	(ii) Central Government Civilian Employees(OBC who have rendered not less than 3 years regular and continuous service as on Closing date	8 (5+3) years.
14	(iii) Central Government Civilian Employees(SC/ST ) who have rendered not less than 3 years regular and continuous service as on Closing date	10(5+5) years.
16	<b>For Group 'C' posts</b> (i) <b>Central Govt. Civilian Employees ( General)</b> who have rendered not less than 3 years regular and continuous service as on Closing date	40 years
18	(ii) <b>Central Govt. Civilian Employees ( OBC )</b> who have rendered not less than 3 years regular and continuous service as on Closing date	43 years
20	(iii) <b>Central Govt. Civilian Employees ( SC/ST )</b> who have rendered not less than 3 years regular and continuous service as on Closing date	45 years
21	Candidates who had ordinarily been domiciled in the <b>State of Jammu &amp; Kashmir ( Unreserved )</b>	5 years
22	Candidates who had ordinarily been domiciled in the <b>State of Jammu &amp; Kashmir( OBC )</b>	8 years
23	Candidates who had ordinarily been domiciled in the <b>State of Jammu &amp; Kashmir( SC/ST)</b>	10 years
24	<b>Widows / Divorced Women / Women judicially separated</b> and who are not remarried ( Unreserved )	Up to 35 years of age
25	<b>Widows / Divorced Women / Women judicially separated</b> and who are not remarried( OBC )	Up to 38 years of age
26	<b>Widows / Divorced Women / Women judicially separated</b> and who are not remarried( SC/ST )	Up to 40 years of age
30	<b>Departmental Male Candidates for Delhi Police only</b> (i) <b>Departmental Candidates (Unreserved)</b> who have rendered not less than 5 years of regular and continuous service as on closing date.	Upto 40 years
31	(ii) <b>Departmental Candidates (OBC)</b> who have rendered not less than 5 years of regular and continuous service as on closing date.	Upto 43 years
32	(iii) <b>Departmental Candidates (SC/ST)</b> who have rendered not less than 5 years of regular and continuous service as on closing date.	Upto 45 years
33	<b>Departmental Female Candidates for Delhi Police only</b> (i) <b>Departmental Candidates (Unreserved)</b> who have rendered not less than 3 years of regular and continuous service as on closing date.	Upto 40 years.

34	(ii) <b>Departmental Candidates (OBC)</b> who have rendered not less than 3 years of regular and continuous service as on closing date.	Upto 43 years
35	(iii) <b>Departmental Candidates (SC/ST)</b> who have rendered not less than 3 years of regular and continuous service as on closing date.	Upto 45 years
36	<b>FOR DELHI POLICE ONLY:</b> (i) <b>Sportsman</b> of distinction who has represented a state at the national level and the country at international level (General)	Upto 5 years.
37	(ii) <b>Sportsman</b> of distinction who has represented a state at the national level and the country at international level (SC/ST)	Upto 10 years
38	(iii) <b>Sportsman</b> of distinction who has represented a state at the national level and the country at international level (OBC)	Upto 8 years

**NOTE-I :** Ex-servicemen who have already secured employment in civil side under Central Government in Group 'C' & 'D' posts on regular basis after availing of the benefits of reservation given to ex-servicemen for their re-employment are NOT eligible for fee concession or for claiming benefits of reservation under EXS category. However, they are eligible for age relaxation as per rules.

**NOTE-II :** The period of "Call up Service" of an Ex-Serviceman in the Armed Forces shall also be treated as service rendered in the Armed Forces for purpose of age relaxation as per rules.

**NOTE-III :** For any serviceman of the three Armed Forces of the Union to be treated as Ex-Serviceman for the purpose of securing the benefits of reservation, he must have already acquired, at the relevant time of submitting his application for the Post / Service, the status of ex-serviceman and /or is in a position to establish his acquired entitlement by documentary evidence from the competent authority that he would complete specified term of engagement from the Armed Forces within the stipulated period of one year from the CLOSING DATE (i.e 12.04.2013)

**NOTE-IV :** AGE CONCESSION IS NOT ADMISSIBLE TO SONS, DAUGHTERS AND DEPENDENTS OF EX-SERVICEMEN.

**NOTE - V :** A Matriculate Ex-Serviceman (which term includes an Ex-Serviceman, who has obtained the Indian Army Special Certificate of education or corresponding certificate in the Navy or the Air Force), who has put in **not less than 15 years of service as on closing date** with Armed Forces of the Union shall be considered eligible for appointment to the posts being advertised through this examination. Thus, those Non-Graduate Ex-Servicemen who have not completed 15 years of service as on the last date for receipt of applications as stated in Note-III under Para 4 (B ) are not eligible.

**EXPLANATION 1:** An Ex-Serviceman **means** a person who has served in any rank whether as a combatant or non-combatant in the Regular Army, Navy, Air Force of the Indian Union, and

- (i) who retired from such service after earning his/her pension. This would also include persons who are retired/retire at their own request but after having earned their pension; or
- (ii) who has been released from such service on medical grounds attributable to military service/circumstances beyond his control and awarded medical or other disability pension; or
- (iii) who has been released, otherwise than on his own request from such service as a result of reduction in establishment; or
- (iv) who has been released from such service after completing the specific period of engagements, otherwise than at his own request or by way of dismissal or discharge on account of misconduct or inefficiency, and has been given a gratuity; and includes personnel of the Territorial Army of the following categories, namely:-
  - (a) Pension holders for continuous embodied service,
  - (b) Persons with disability attributable to military service; and
  - (c) Gallantry award winners.

**EXPLANATION 2:** The persons serving in the Armed Forces of the Union, who on retirement from service, would come under the category of "ex-serviceman" may be permitted to apply for re-employment one year before the completion of the specified terms of engagement and avail themselves of all concessions available to ex-servicemen but shall not be permitted to leave the uniform until they complete the specified term of engagement in the Armed Forces of the Union.

**Note-VI:** The benefit of age relaxation available to Central Government Civilian Employees are **NOT** available to Departmental candidates of Delhi Police.

**Note-VII:** OBC certificates issued by NCT for candidates for OBCs listed by NCT but not included in Central list of OBCs will be accepted for post of SI in Delhi Police only for reservation and age relaxation proposes. For candidates in Central OBC lists, certificates in prescribed from NCT or any other States/UT will be accepted as usual.

**4(C) : PROCESS OF CERTIFICATION AND FORMAT OF CERTIFICATES:**

Candidates who wish to be considered against vacancies reserved/or seek age-relaxation **must submit requisite certificate** from the competent authority, in the prescribed format when such certificates are sought by concerned Regional/Sub Regional Offices at the time of interview/personality tests. Otherwise, their claim for SC/ST/OBC/ExS/Departmental candidates (Delhi Police) status will not be entertained and their candidature/applications will be considered under **General (UR)** category. The formats of the certificates are annexed. Certificates obtained in any other format will not be accepted. Candidates claiming OBC status may note that certificate on creamy layer status issued by the competent authority as prescribed by DOP&T should have been obtained within three years before the closing date i.e. **12.04.2013 in the prescribed format only.** Certificates issued up to the last tier of examination i.e. interview will also be accepted by the Commission.

**NOTE :** Candidates are warned that they will be permanently debarred from the examination conducted by the Commission in case they fraudulently claim **SC/ST/OBC/ExS/Departmental candidates(Delhi Police) status.**

**5. ESSENTIAL QUALIFICATIONS as on 01.01.2013**

- A. **BACHELOR'S DEGREE FROM A RECOGNISED UNIVERSITY OR EQUIVALENT.**
- B. **For the post of Sub Inspector in Delhi Police only:-** Male candidates must possess and also carry a valid Driving License for LMV(Motor cycle and Car) on the date fixed for Physical Endurance and Standard Tests. Otherwise they will not be allowed to undergo Physical Endurance and Standard Tests.

**NOTE-I:** As per Ministry of Human Resource Development Notification No. 44 dated 01.03.1995 published in Gazette of India edition dated 08.04.1995, the Degree obtained through open Universities/Distance Education Mode needs to be recognized by Distance Education Council, IGNOU. Accordingly, unless such

**Degrees had been recognized for the period when the candidates acquired the relevant qualification, they will not be accepted for the purpose of Educational Qualification.**

**Note – II :** Candidates who have not acquired/will not acquire the educational qualification as on **01-01-2013** will not be eligible and need not apply.

**Note- III :** All candidates who are declared qualified by the Commission for appearing at the **Interview/Personality Test** will be required to produce all relevant Certificates such as Mark sheets for all the three years of Graduation/ Provisional Certificate/ Certificate of Graduation as proof of having acquired the minimum educational qualification on the closing date failing which the candidature of such candidate will be cancelled by the Commission.

**Note-IV:** Due weightage will be given to candidates with NCC 'B' or 'C' certificate at the time of interview/personality test.

#### 6. MODE OF PAYMENT:

##### (i) Off-line applications:

The candidates should pay the fee by means of "**Central Recruitment Fee Stamps (CRFS)**" only. CRFS stamps are available at the counter of all Departmental Post Offices of the country. Recruitment Fee Stamps should be pasted on the application form in the space earmarked for the purpose and **got cancelled** from the Counter of Post Office of issue **with the date stamp** of the Issuing Post Office in such a manner that the impression or the cancellation stamps partially overflows on the Application Form itself, taking care at the same time that the impression is clear and distinct to facilitate the **identification of date and Post Office of issue at any subsequent stage**. After getting the Recruitment Fee Stamps cancelled from the Post Office, the candidate must submit their application to the concerned Regional Office/Sub Regional Offices of the Commission in the usual manner after completing other formalities. Applications with CRFS not cancelled by the post office will be rejected outright.

**(ii) On-line applications:** The candidates submitting their applications on-line should pay the requisite fee only through State Bank of India either in the form of **challan or net-banking**.

**(iii) Women candidates and candidates belonging to Scheduled Caste, Scheduled Tribe and Ex-Servicemen eligible for reservation are exempted from paying fee, as per rules/instructions of DOPT.**

**NOTE I:** Fee once paid will **not** be refunded under any circumstances.

**NOTE II:** Fee paid by **modes other than CRFS/ SBI challan**, as stated above, will **not** be accepted and the applications of such candidates will be rejected forthright and the payment made shall stand forfeited.

**NOTE III:** Candidates may please note that **non-cancellation of CRFS** from the concerned Post Office in the manner indicated above, will lead to rejection of his/her application form. Therefore, it is in the interest of candidates that they get the CRFS cancelled from the concerned Post Office.

#### 7. CENTRES OF EXAMINATION

A candidate **must indicate the centres in the Application Form**. A candidate must submit his/her application only to the concerned Regional/Sub Regional Office of the Commission under whose jurisdiction the Centre selected by him / her falls. **Application received in any other Regional/Sub Regional Office of the Commission will be rejected summarily.**

The applications should be addressed to the **Regional / Sub-Regional Offices of the Commission** as indicated in the table below:-

Sl. No.	Examination Centres & Centre Code	Address to which the applications should be sent
1	2	3
1.	Bhagalpur (3201), Darbhanga (3202), Muzaffarpur (3205), Agra(3001), Bareilly(3005), Gorakhpur(3007), Kanpur(3009), Meerut (3011), Varanasi (3013), Allahabad (3003), Patna (3206), Lucknow (3010)	Regional Director(CR), Staff Selection Commission, 21-23 Lowther Road, Allahabad, Uttar Pradesh-211002
2.	Kolkata (4410), Midnapur (4413), Port Blair (4802), Sambalpur(4609), Gangtok(4001), Jalpaiguri(4408), Bhubaneswar (4604), Cuttack (4605), Ranchi (4205),	Regional Director (ER), Staff Selection Commission, 1st MSO Building,(8th Floor) 234/4 . Acharya Jagadish Chandra Bose Road, Kolkata, West Bengal-700020
3.	Bangalore (9001), Thiruvananthapuram (9211), Kochi (9204), Thrissur (9212), Gulbarga (9005), Mangalore (9008), Dharwar (9004), Kozhikode (Calicut) (9206)	Regional Director(KKR), Staff Selection Commission, 1st Floor, "E" Wing, Kendriya Sadan, Koramangala, Bangalore, Karnataka-560034
4.	Delhi (2201), Jaipur (2405), Jodhpur (2406), Kota (2407), Bikaner (2404), Udaipur (2409), Ajmer (2401), Alwar (2402), Sriganganagar (2408), Dehradun (2002), Haldwani (2003),Almora (2001), Srinagar (2004) (Uttarakhand)	Regional Director (NR), Staff Selection Commission, Block No. 12, CGO Complex, Lodhi Road, New Delhi-110504
5.	Guwahati (Dispur) (5105), Itanagar (5001), Dibrugarh (5102), Jorhat (5107),Silchar (5111), Imphal (5501), Shillong (5401), Aizwal (5701), Kohima (5302), Agartala (5601), Churachandpur-5502	Regional Director(NER), Staff Selection Commission, Housefed Complex, West End Block, Last Gate, Beltola Basistha Road,Dispur Guwahati, Assam-781006
6.	Hyderabad(8002), Guntur (8001), Kurnool (8003), Rajahmundry (8004), Tirupati (8006), Coimbatore (8202), Chennai (8201), Madurai (8204), Puducherry(8401), Tirunelveli (8207), Tiruchirapalli (8206), Vishakhapatnam (8007)	Regional Director (SR), Staff Selection Commission, EVK Sampath Building, 2nd Floor, College Road, Chennai, Tamil Nadu-600006
7.	Aurangabad (7202), Mumbai (7204), Kolhapur (7203), Nagpur(7205), Panaji (7801), Pune (7208), Ahmedabad (7001), Vadodara (7002), Rajkot (7006), Nashik (7207), Amravati (7201),Surat (7007)	Regional Director (WR), Staff Selection Commission, 1st Floor, South Wing, Pratishtha Bhawan, 101 M.K. Road, Mumbai, Maharashtra-400020
8.	Ambikapur (6201), Indore (6006), Jabalpur (6007), Jagdalpur (6203), Chindwara (6003), Chattarpur (6002), Guna (6004), Mandasaur (6010), Jhabua (6008), Khandwa (6009), Rewa (6012), Raipur (6204), Bhopal (6001), Gwalior (6005), Bilaspur(6202)	Dy. Director (MPR), Staff Selection Commission, "Nishant Vila" F. Jalvihar Colony, Raipur, Chhatisgarh-492001
9.	Ambala (1801), Jalandhar (1402), Leh (1005) Chandigarh (1601), Jammu (1004), Srinagar(1007), Shimla(1203),Bhathinda (1401) Hamirpur (1202), Baramula-1002	Dy. Director (NWR), Staff Selection Commission, Block No. 3, Gr. Floor, Kendriya Sadan, Sector-9, Chandigarh-160017

**NOTE I:** **No change of Centre of Examination will be allowed under any circumstance.** Hence, the candidates should select the centres, **carefully** and

indicate the same **correctly** in their applications. The Commission considers only applications from those serving in Armed Forces or Central Armed Police Forces for change of centre, if they are posted out due to operational reasons.

**NOTE II:** The Commission **reserves** the right to cancel any Centre and ask the candidates of that centre to appear from **another** centre. Commission also reserves the right to **divert** candidates of any centre to some other Centre to take the examination.

#### 8. SCHEME OF EXAMINATION :

**Written Examination. ( Date of Examination 10-06-2013 (FN)**

##### PAPER-I

	Subject	Number of Questions	Maximum Marks	Duration/ Time Allowed
Part A	General Intelligence and Reasoning	50	50	Two Hours (10.00 A.M. to 12.00 Noon)
Part B	General Knowledge and General Awareness	50	50	
Part C	Quantitative Aptitude	50	50	
Part D	English Comprehension	50	50	

##### PAPER-II (Date of Examination 18-08-2013(FN))

Subject	Maximum Marks /Questions.	Duration and timing
English language & Comprehension	200 marks/200 questions	Two Hours (10.00 A.M. to 12.00 Noon)

Questions in both papers will be of **Objective Multiple Choice Type**. Questions will be set in Hindi and English in Parts A, B and C of Paper I. In case of discrepancy, the English version will prevail.

**Deduction of 0.25 marks will be made for each incorrect answer marked on OMR Answer Sheet.**

**Note : I** Candidates shortlisted for PET/Medical Examination on the basis of their performance in Paper-I will only be called for Paper-II. Paper-II of only such candidates who qualify in PST/PET will be evaluated.

**NOTE-II:** Candidates are not permitted to use Mobile Phone, Calculator or any other electronic/electrical device for answering any paper (Test Booklets). Candidates must not, therefore, bring Mobile Phone, Calculator or any other electronic / electrical device inside the Examination premises. Possession of these items, whether in use or not, will be considered as "use of unfair means" in the Examination and candidature of such candidates will be cancelled forthwith. Such candidates are also liable for debarment upto a period of 5 years and/or criminal prosecution.

**NOTE-III:** Commission will place the answer keys of Paper-I on its website in about 7 days of the Examination. Objections and claims if any, received within the time limit specified while placing answer keys will be examined by the Commission with the help of experts, if necessary.

#### 9. SYLLABUS

##### Paper -I

**A. General Intelligence & Reasoning :** It would include questions of both verbal and non-verbal type. This component may include questions on analogies, similarities and differences, space visualization, spatial orientation, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship concepts, arithmetical reasoning and figural classification, arithmetic number series, non-verbal series, coding and decoding, statement conclusion, syllogistic reasoning etc. The topics are, Semantic Analogy, Symbolic/Number Analogy, Figural Analogy, Semantic Classification, Symbolic/Number Classification, Figural Classification, Semantic Series, Number Series, Figural Series, Problem Solving, Word Building, Coding & de-coding, Numerical Operations, symbolic Operations, Trends, Space Orientation, Space Visualization, Venn Diagrams, Drawing inferences, Punched hole/pattern-folding & un-folding, Figural Pattern- folding and completion, Indexing Address matching, Date & city matching Classification of centre codes/roll numbers, Small & Capital letters/numbers coding, decoding and classification, Embedded Figures, Critical thinking, Emotional Intelligence, Social Intelligence, Other sub-topics if any.

**B. General Awareness :** Questions in this component will be aimed at testing the candidates general awareness of the environment around him and its application to society. Questions will also be designed to test knowledge of current events and of such matters of every day observations and experience in their scientific aspect as may be expected of any educated person. The test will also include questions relating to India and its neighboring countries especially pertaining to History, Culture, Geography, Economic Scene, General Polity, Indian Constitution, scientific Research etc.

**C. Quantitative Aptitude :** The questions will be designed to test the ability of appropriate use of numbers and number sense of the candidate. The scope of the test will be computation of whole numbers, decimals, fractions and relationships between numbers, Percentage, Ratio and Proportion, Square roots, Averages, Interest, Profit & Loss, Discount, Partnership Business, Mixture and Allegation, Time and distance, Time & work, Basic algebraic identities of School Algebra and Elementary surds, Graphs of Linear Equations, Triangle and its various kinds of centres, Congruence and similarity of triangles, Circle and its chords, tangents, angles subtended by chords of a circle, common tangents to two or more circles, Triangle, Quadrilaterals, Regular Polygons, Circle, Right Prism, Right Circular Cone, Right Circular Cylinder, Sphere, Hemispheres, Rectangular Parallelepiped, Regular Right Pyramid with triangular or square base, Trigonometric ratio, Degree and Radian Measures, Standard Identities, Complementary angles, Heights and Distances, Histogram, Frequency polygon, Bar diagram & Pie chart.

**D. English Comprehension :** Candidates' ability to understand correct English, his basic comprehension and writing ability, etc. would be tested.

**Paper-II : English Language & Comprehension :** Questions in this component will be designed to test the candidate's understanding and knowledge of English Language and will be based on error recognition, filling in the blanks (using verbs, preposition, articles etc), Vocabulary, Spellings, Grammar, Sentence Structure, Synonyms, Antonyms, Sentence Completion, Phrases and Idiomatic use of Words, comprehension etc.

**NOTE – I:** The Commission shall have the discretion to fix different minimum qualifying standards in each part of Paper I taking into consideration among others, category-wise vacancies and category-wise number of candidates. Only those candidates, who have scored above the cut off marks fixed by the Commission in Paper I would be required to appear in the Physical Endurance Test/Medical examination.

**NOTE- II:** Marks received in Paper-I will be used to screen the candidates for appearing for PET/Medical Examination. Marks of such screened candidates in Paper I if they are successful in PET/Medical Examination, will be taken into account along with marks in Paper II for final ranking of candidates for selecting them for the interview and also final selection.



**NOTE-III:** The Commission will be using a software to detect irregularities in an examination Hall / Sub-Centre / Centre / State. The Candidates are advised to desist from use of any unfair method in the examination hall which will render them ineligible for further consideration for the examination and also lead to their debarment from Commission's examinations in future beside inviting criminal prosecution.

**10 PHYSICAL ENDURENCE TEST(PET) is MANDATORY FOR THE POST .**

**NOTE -I:** Candidates will have to undergo **PET / MEDICAL Examination.**

**NOTE-II:** Only those candidates who secure qualifying marks in Paper I of the written examination, as may be fixed by the Commission at their discretion, will be shortlisted for Physical Endurance Test (PET)/ PST and medical test. Paper-II of shortlisted candidates who qualify in PST/PET will only be evaluated. Candidates will be called for Personality Test/ Interview based on their combined performance in Paper-I and Paper-II.

**10 (A) PHYSICAL STANDARDS  
ELIGIBILITY TESTS (For all posts)**

Category of candidates	Height (in cms)	Chest (in cms)	
		Unexpanded	Expanded
(i) For male candidates only <b>GENERAL</b>	170	80	85
For candidates belonging to Hill areas of Garhwal, Kumaon, Himachal Pradesh, Gorkhas, Dogras, Marathas, Kashmir Valley, Leh & Ladakh regions of J&K, North-Eastern States and Sikkim	165	80	85
For all candidates belonging to Scheduled Tribes	162.5	77	82
(ii) For Female candidates only <b>GENERAL</b>	157	-	-
For candidates belonging to Hill areas of Garhwal, Kumaon, Himachal Pradesh, Gorkhas, Dogras, Marathas, Kashmir Valley, Leh & Ladakh regions of J&K, North-Eastern States and Sikkim	155	-	-
For all candidates belonging to Scheduled Tribes	154	-	-

**Physical Efficiency(Endurance) Test(PET) ( For all posts)**

**For male candidates only**

- 100 meters race in 16 seconds
- 1.6 Kms race in 6.5 minutes
- Long Jump : 3.65 metres in 3 chances
- High Jump : 1.2 metres in 3 chances
- Shot put (16 Lbs): 4.5 metres in 3 chances

**For female candidates only**

- 100 metres race in 18 seconds
- 800 metres race in 4 minutes
- Long Jump: 2.7 metres (9 feet) in 3 chances.
- High Jump : 0.9 metres (3 feet) in 3 chances.

**Note:**

- There shall be **no** minimum requirement of chest measurement for Female candidates.
- Relaxation in height and chest ( as the case may be ) as mentioned above will be permissible **only on production of certificate in the proforma as prescribed in Annexure VIII** from the competent authorities of the District where they ordinarily reside(s).
- Those candidates who are declared not qualified in Physical Standards, i.e .height and chest, may prefer an appeal, if they so desire, to the appellate authority present on the PET ground. The decision of the appellate authority will be final and no further appeal or representation in this regard will be entertained.

**10 (B) Weight: Corresponding to height for all posts.**

**10-(C) Medical standard (For all posts)**

**Eye sight:**

The minimum distant vision should be 6/6 and 6/9 of two eyes without correction i.e.without wearing of glasses.

- The candidate must **not have knock knee, flat foot, varicose vein or squint in eyes** and they should possess high colour vision.
- They must be **in good mental and bodily health and free from** any physical defect likely to interfere with the efficient performance of the duties.

**Relaxation in PST/PET for Departmental Candidates/Ex.Servicemen/Women Departmental candidates of Delhi Police only:-**

**(i) For Male Departmental and Ex.Servicemen candidates**

- Race 1600 meters (Age wise)  
From the age of 30 years and upto 40 years – 7 minutes and 45 seconds (qualifying)  
From the age of above 40 years – 8 minutes and 45 seconds( qualifying)

- Broad Jump/Long Jump( age-wise)  
From the age of 30 years and upto 40 years – 12 feet ( to be achieved in three chance)  
From the above of above 40 years- 11 feet ( to be achieved in three chance)

- High Jump ( Age wise)  
From the age of 30 years and upto 40 years- 3.3 feet ( to be achieved in three chance)  
From the age of above 40 years- 3 feet ( to be achieved in three chance)

Note : Those who qualify in 1600 meters race will only appear in (b) and (c).

**(ii) For Female Departmental candidates.**

- Race 1600 meters ( qualifying)

**Age wise :**

- From the age of above 30 years and upto 40 years – 9 minutes.  
From the age of above 40 years – 10 minutes.

- Broad Jump/Long Jump ( age- wise)  
From the age of 30 years and upto 40 years – 9 feet ( to be achieved in three chance)  
From the age of above 40 years. – 8 feet ( to be achieved in three chance)

- High Jump ( age-wise)  
From the age of 30 years and upto 40 years. – 2.9 feet ( to be achieved in three chance)  
From the age of above 40 years. – 2.6 feet ( to be achieved in three chance)

Note : Those who qualify in 1600 meters race will only appear in (b) and (c).

**10(D) Physical Endurance Test Will NOT CARRY ANY MARKS BUT WILL BE OF QUALIFYING/ELIMINATION NATURE.**

**NOTE:I** Ex-Servicemen applying for the posts in CAPFs are not required to undergo PET. However, all Ex-Servicemen are required to pass the written test and fulfill the physical standards prescribed for direct recruits for recruitment of Sub Inspector/ Assistant Sub-Inspector, as the case may be. They should also pass the medical standards prescribed for direct recruits.

**NOTE:II** The candidature of female candidates who are pregnant at the time of Physical Endurance Test will be rejected as they cannot undergo PET. No appeal/representation will be entertained against such rejection.

**Note: III Medical Examination** All the candidates who qualify in the PET will be medically examined by the Medical Officer of the CAPFs or any other Medical Officer or Assistant Surgeon belonging to Grade I of any Central/State Govt. Hospital or Dispensary. Those who are found fit in the medical examination and qualify in the written examination also will be required to appear in the Interview(Personality Test) of 100 marks. Candidates who are found to be unfit, will be informed of the position and they can make an appeal before Review Medical Board within the prescribed time limit of 15 days. Decision of Re-Medical Board / Review Medical Board will be final and no appeal / representation against the decision of the Re-Medical Board / Review Medical Board will be entertained.

Finally selected candidates for the posts of Sub-Inspector and Assistant Sub-Inspector would, as part of training curriculum, have to pass seven obstacle events as mentioned below, failing which they may not be retained in the Force:

- Jumping over the Vertical Board;
- Holding the rope on jumping from the Board.
- Tarzan Swing;
- Jumping on the Horizontal Board;
- Parallel Rope;
- Monkey Crawl;
- Vertical Rope.

**11. GENERAL INSTRUCTIONS TO BE COMPLIED BY THE CANDIDATES IN THE WRITTEN EXAMINATIONS**

- Candidates must write the papers/indicate the answers in their own hand.
- In the question papers, wherever necessary, the Metric systems of weights and measures only will be used.
- Candidates are not permitted to use calculators and other electronic gadgets except as specified in the Notice. They should not, therefore, bring the same inside the Examination Premises/Venue for which their use is not permitted.
- If any candidate is found to possess mobile phones or any other means of wireless communication in the working or switched off mode, his/her candidature shall be cancelled forthwith.
- Wherever applicable, the candidates must indicate /write the answer either in Hindi or in English. If answers are indicated/written partly in Hindi and partly in English and vice versa, the Answer script will not be evaluated and the candidate will be awarded zero marks.
- OMR Type of Answer Sheets will be supplied by the Commission to candidates for recording the answers of Multiple Choice Objective Type Questions. Candidates are advised to read very carefully, the instructions, placed on the Commission's website(Candidate's Corner), and instruction on OMR sheet /Question Papers in their own interest. Model OMR sheet is also provided on the website to enable the candidates to practice proper marking of the answer in objective type papers.

**(a) PART-A & PART-B OF OMR ANSWER SHEET TO BE FILLED IN BLACK/BLUE BALL POINT PEN ONLY.**

- Candidate should write his/her name, Roll Number, Ticket Number, Date of birth and Test Form Number correctly, in the relevant places in OMR Answer Sheet and also affix signature and LIT on space provided for the purpose. Answer Sheet not bearing candidate's Name, Roll Number, Ticket Number, Test Form No, signature and left hand thumb impression or in which such details have not been properly shaded will not be evaluated and 'Zero' marks will be awarded to them.

**11. MODE OF SELECTION:**

After the written Examination and the Interview /personality test, the Commission will draw up an All India Merit List and, in that order, as many candidates as are found by the Commission to have qualified in the Examination shall be recommended for appointment upto the number of unreserved vacancies available taking into consideration their options for the posts included in the examination.

The Commission will recommend the candidates in the Merit List on the basis of the aggregate marks obtained by the candidates in the written examination and interview/personality test. As multiple options are available for various posts, allotment to posts will be on the basis of merit cum option. Therefore, candidates are advised to make their preferences with care. Options once exercised shall be final.

Provided that SC, ST, and OBC candidates, who are selected on their own merit without relaxed standards, along with candidates belonging to other communities, will not be adjusted against the reserved share of vacancies. Such SC, ST, and OBC candidates will be accommodated against the general/unreserved vacancies as per their position in the overall Merit List. The reserved vacancies will be filled up separately from amongst the eligible SCs, STs, and OBCs candidates which will thus comprise of SC, ST, and OBC candidates who are lower in merit than the last general candidate on merit list of unreserved category but otherwise found suitable for appointment even by relaxed standard.

An Ex-Serviceman candidate who qualifies on the basis of relaxed standards viz. age limit, experience or qualifications, permitted number of chances in written examination, extended zone of consideration, etc. or who have not obtained civilian employment will be counted against reserved vacancies and not against general vacancies subject to fitness of such candidate for selection. Such candidates will also be recommended at the relaxed standards to the extent the number of vacancies reserved for them, to make up for the deficiency in the reserved quota, irrespective of their rank in the order of merit. Deduction from the age of Ex-Servicemen is permissible against the reserved or unreserved posts and such exemption cannot be termed as relaxed standards in regard to age.

**Note: I :** Success in the examination confers no right of appointment unless government is satisfied after such enquiry as may be considered necessary that the candidate is suitable in all respects of appointment to the service/post.

**NOTE-II:** The candidates applying for the examination should ensure that they fulfill all the eligibility conditions for admission to the examination. Their admission at all the stages of examination will be purely provisional, subject to their satisfying the prescribed eligibility conditions. If, on verification, at any time before or after the written examination and skill test, it is found that they do not fulfill any of the eligibility conditions, their candidature for the examination will be cancelled by the Commission.

**13. RESOLUTION OF TIE CASES**

In case where more than one candidate secure the equal aggregates marks, tie will be resolved by applying the following methods one after another:-

- Total marks in written examination.
- Marks in Paper-II
- Marks in Paper-I
- Date of birth, with older candidates placed higher.
- Alphabetical order in the first names of the candidates appear.

**14. HOW TO APPLY : The application must be submitted only in the prescribed**

Continued from page 33

format on – line or on paper/off-line. For detailed instructions for filling up the application form Annexure-IIA may be referred to.

15. ADMISSION TO THE EXAMINATION:

All candidates who apply in response to this advertisement by the CLOSING DATE will be assigned Roll numbers, which will be placed on the website of concerned Regional Office of the Commission within two weeks from the CLOSING DATE. A candidate must write his/her Roll number along with his/her name, date of birth and name of the examination while addressing any communication to the Commission.

16. COMMISSION'S DECISION FINAL

The decision of the Commission in all matters relating to eligibility, acceptance or rejection of the applications, penalty for false information, mode of selection, conduct of examination(s) and interviews, allotment of examination centres, selection and allotment of posts/organization to selected candidates will be final and binding on the candidates and no enquiry/correspondence will be entertained in this regard.

17. Action against candidates found guilty of misconduct:

Candidates are warned that they should not furnish any particulars that are false or suppress any material information while filling in the application form. Candidates are also warned that they should in no case attempt to alter or otherwise tamper with any

entry in a document or the attested certified copy submitted by them nor should they submit a tampered/fabricated document. If there is any inaccuracy or any discrepancy in filling OMR sheet, they will be awarded "ZERO."

Without prejudice to criminal action/debarment from Commission's examination wherever necessary, candidature will be summarily cancelled at any stage of the recruitment in respect of candidates found have indulged in any of the following:-

- (i) In possession of MOBILE PHONE & ACCESSORIES AND OTHER ELECTRONIC GADGETS WITHIN THE PREMISES OF THE EXAMINATION CENTRES, WHETHER IN USE OR IN SWITCH OFF MODE AND ON PERSON OR OTHERWISE.
(ii) Involved in malpractices found on the basis of post examination analysis.
(iii) Using unfair means in the examination hall.
(iv) Obtaining support for his/her candidature by any means.
(v) Impersonate/Procuring impersonation by any person.
(vi) Submitting fabricated documents or documents which have been tampered with.
(vii) Making statements which are incorrect or false or suppressing material information.
(viii) Resorting to any other irregular or improper means in connection with his/her candidature for the examination.
(ix) Misbehaving in any other manner in the examination hall with the Supervisor Invigilator or Commission's representatives.
(x) Taking away the Answer sheet with him/her from the examination hall, or passing it on to unauthorised persons during the conduct of the examination.
(xi) Intimidating or causing bodily harm to the staff employed by the Commission for the conduct of examination.
(xii) To be ineligible for the Examination by not fulfilling the eligibility conditions mentioned in the Notice.
(xiii) Candidature can also be cancelled at any stage of the recruitment for any other ground which the Commission considers to be sufficient cause for cancellation of candidature.

18. Candidates who have not affixed their signature or LTI or who have not written or coded detailed such as Name, Roll Number, Ticket Number and Test Form Numbers or not furnished the declaration/certificate on Page-I of the OMR answer sheet in Paper-I& Paper-II will be awarded 'ZERO' mark.

19. COURTS JURISDICTION

Any dispute in regard to this recruitment will be subject to courts/tribunals having jurisdiction over the City/Town in which the concerned Regional/Sub-Regional Office of the SSC is situated and where the candidate has submitted his/her application.

20. For detailed instructions relating to Application form, instructions for filling up the application form and for on-line payment/submission of application, candidates are advised to refer Annexure-I, II A and II B.

Continued on page 35

INDIAN VETERINARY RESEARCH INSTITUTE Eastern Regional Station 37, Belgachia Road, Kolkata-700037 Walk-in-interview A Walk-in-Interview is scheduled to be held on 5th April, 2013 from 11:00 AM at IVRI, ERS, Kolkata-700 037 for engagement of one JRF in the time bound project "MRSA" under DBT's Twinning programme.

Government of India Central Institute of Fisheries Nautical & Engineering Training (CIFNET) Fine Arts Avenue, Kochi - 682 016 Phone: 0484- 2351610, 2351493, 2351790 Fax: 0484-2370879 E-mail: cifnet@nic.in Admission Notification 2013 Applications are invited for Bachelor of Fishery Science (Nautical Science) 4-year programme (8 semester) with integrated practicals & on board training on ocean going fishing vessels

Special feature: On completion of this degree, basic modular courses with required sea experience are exempted from all written papers and directly (without Post-Sea courses) appear for the Mate Fishing Vessel oral examination leading to the issuance of Certificate of competency as Mate of a fishing vessel and also eligible for CDC as per MS notice 10 of 2010 dated 07.07.2010 subject to obtain a sponsoring letter from DG Shipping approved sponsoring agency.

Entry Qualification: 10 + 2 with minimum 50% marks in English 50% marks in Mathematics and 50% aggregate marks in other Science subjects.

The candidates, who are appearing 10 + 2 examination during March, 2013 are also eligible to apply. However the selection will be made only through marks obtained in 10 + 2 and entrance examination.

Age limit: Minimum 17 years and Maximum 20 years as on 1st October, 2013.

Intake capacity: General Quota -20 seats. NRI Quota - 1 seat Foreign National Quota - 1 seat

Mode of selection: Entrance Test (at Kochi, Chennai & Visakhapatnam), Academic Merit in (10 + 2) and Interview.

Medical fitness/ Eye sight and colour vision: As per Merchant Shipping (Medical examination) Rules, 2000 as amended from time to time.

System of Teaching: Semester system of instruction with theoretical and practical exposure and a special continuous Onboard training on ocean-going fishing vessels in each semester.

R.C.SINHA DIRECTOR For further details please visit: www.cifnet.gov.in EN 50/68

NORTHERN RAILWAY RAILWAY RECRUITMENT CELL LAJPAT NAGAR-I, NEW DELHI-110024 www.rrcnr.org Subject: Select list - I against Employment Notification No. E/220E/Open Mkt/RRC/2010 Dated 17.12.2010 Reference above on the basis of written examination held on 06.05.2012, 13.05.2012, 27.05.2012, 03.06.2012, 10.06.2012, and 24.06.2012 and written examination result for PET notified on date 05.09.2012 and subsequent declaration of Result (post PET) on 23.11.2012 and 13.08.2012 for PH candidates.

No.A.21011/1/2013-I Government of India Department of Space Antariksh Bhavan Bangalore-560 231 One post of Controller (Administration) in the National Remote Sensing Centre (NRSC), Indian Space Research Organization, Balanagar, Hyderabad, Andhra Pradesh, of this Department in the Pay Band of ₹ 37400- 67000/- plus Grade Pay of ₹ 8700/- is to be filled on deputation basis.

Maharshi Sandipani Rashtriya Vedavidya Pratishthan (Ministry of HRD, Govt. of India) Veda Vidya Marg, Chintaman Ganesh, P.O. Jawasiya Ujjain-456006 (M.P.) Corrigendum Ref- EN 43/117, published in Employment News dated 26 Jan-1 Feb 2013. The last date of receipt of application by Maharshi Sandipani Rashtriya Veda Vidya Pratishthan at Ujjain, may please be read as 25th March, 2013 instead of 15th March, 2013. EN 50/103

NSIC TECHNICAL SERVICES CENTRE (A Govt. of India Enterprise) B-24, EKKADUTHANGAL, CHENNAI 600 032 Phone : 044-22252335/6/7 Fax: 044-22254500 Email : chentrg@nsic.co.in ADMISION NOTICE - BATCHES COMMENCING FROM 15.04.2013 Skill Development Training Programmes to be more employable

21. घोषणा / Declaration

(i) मैंने इस भर्ती के लिए कोई और आवेदन पत्र नहीं भेजा है मुझे यह मालूम है कि यदि मैं इस नियम का उल्लंघन करता/करती हूँ तो आयोग द्वारा मेरा आवेदन सरकारी तौर पर अस्वीकार कर दिया जाएगा।  
I have not submitted any other application for this examination. I am aware that if I contravene this rule, my application will be rejected summarily by the Commission.

(ii) मैंने विज्ञापित में दी गई शर्तों को ध्यानपूर्वक पढ़ लिया है, और मैं एतद्वारा उनका पालन करने का वचन देता/देती हूँ।  
I have read the provisions in the Notice of the examination carefully and hereby undertake to abide by them.

(iii) मैं यह भी घोषणा करता/करती हूँ कि मैं इस परीक्षा में प्रवेश के लिए निर्धारित आयु सीमा, शैक्षिक योग्यता, आदि संबंधी पात्रता की सभी शर्तों को पूरा करता/करती हूँ।  
I further declare that I fulfill all the conditions of eligibility regarding age limits, educational qualifications etc., prescribed for admission to the examination.

(iv) मैं यह भी घोषणा करता/करती हूँ कि मुझे आज तक कर्मचारी चयन आयोग/संघ लोक सेवा आयोग द्वारा किसी भी परीक्षा में बैठने से नहीं रोका गया है तथा न ही मेरे खिलाफ किसी भी विधि न्यायालय में कोई आरोप पत्र लिखित है। मैं यह भी घोषणा करता/करती हूँ कि मुझे सरकारी सेवा से कभी भी बर्खास्त नहीं किया गया है अथवा हटाया नहीं गया है अथवा परिवर्षिका के दौरान मेरी सेवा समाप्त नहीं की गई है।  
I also declare that I do not stand debarred by SSC/UPSC as on date and have never been convicted by any court of law. I also declare that no charge sheet is pending against me in any court of law. Further declare that I have never been dismissed or removed from Govt. Service or my service been terminated during probation.

(v) \* आयु सीमा में छूट चाहने वाले केन्द्र सरकार के असेंनिक कर्मचारी के लिए  
यह घोषणा करता/करती हूँ कि मैं केन्द्र सरकार का एक असेंनिक कर्मचारी हूँ एवं नियमित आधार पर 3 वर्ष की सेवा या सेवाकाल अवधि जैसा की परीक्षा नोटिस में निर्धारित है, आवेदन पत्र जमा करने की अंतिम तिथि या उससे पूर्व पूर्ण कर ली है।  
\* For Central Govt. Civilian Employee seeking age relaxation.  
I declare that I am a Central Govt. Civilian Employee and completed 3 years of regular service or regular length of service stipulated in the Notice of the examination on or before date of closing of submitting application form given in the Notice.

(vi) \* अन्य पिछड़ा वर्ग से संबंधित अर्थवर्गी के लिए  
मैं यह भी घोषणा करता/करती हूँ कि मैं उस समुदाय से संबंधित हूँ जिसे कर्मिक एवं प्रशिक्षण विभाग के दिनांक 8.9.1993 के कार्यालय ज्ञापन सं. 36012/22/93-स्था. (एससीटी) में विहित आदेशों के अनुसार भारत सरकार द्वारा सेवाओं में आरक्षण के प्रयोजन हेतु पिछड़ा वर्ग माना गया है। यह भी घोषणा की जाती है कि भारत सरकार कर्मिक में प्रशिक्षण विभाग के विभिन्न संशोधनों जो कि नोटिस में उल्लिखित है, उसके तहत उपरोक्त कार्यालय ज्ञापन सं. कॉलम 3 में उल्लिखित व्यक्तियों/वर्गों (क्रीमी लेयर) से संबंधित नहीं हूँ मैं यह भी घोषणा करता/करती हूँ कि मैं परीक्षा की विज्ञापित में पैरा 4(ग) के अनुसार निर्धारित प्रारूप में वैध अन्य पिछड़े वर्ग संबंधी प्रमाण पत्र प्रस्तुत करता/करती हूँ।  
\* For Candidate belonging to OBC.  
I declare that I belong to the community which is recognized as a backward class by the Govt. of India for the purpose of reservation in services as per order contained in Deptt. of Personnel and Training Office Memorandum No.36012/22/93-Estt. (SCT) dated 8.9.1993. I also declare that I do not belong to the person/sections (creamy layer) mentioned in column 3 of the schedule of the OM mentioned above and modified vide Govt. of India DOPT OMs mentioned in the Notice. I further declare that I will produce valid OBC certificate as per para 4(C) of notice of the examination in the prescribed format.

(vii) भूतपूर्व सैनिकों के लिए  
मैं घोषणा करता/करती हूँ कि मैं परीक्षा विज्ञापित के अनुसार भूतपूर्व सैनिक संबंधित पात्रता की सभी शर्तों को पूरा करता/करती हूँ और मैंने भूतपूर्व सैनिक के रूप में केन्द्र सरकार के अंतर्गत स्थित चाइड में कोई रोजगार प्राप्त नहीं किया है।  
For Candidate belonging Ex-Serviceman  
I declare that I fulfill all the eligibility condition relating to Ex-Serviceman as per notice of examination and I have not availed employment in civil side under Central Government as Ex-serviceman.

(viii) मैं एतद्वारा यह भी घोषणा करता/करती हूँ कि इस आवेदन पत्र में दिए गए सभी विवरण मेरी अधिकतम जानकारी और विश्वास के अनुसार सत्य, पूर्ण एवं सही है। मैं समझता/समझती हूँ कि यदि इस परीक्षा से पहले या बाद में कोई भी सूचना छुपाई गई/छुपी या असत्य पाई जाने पर या अपात्रता का पता लगने पर मेरी अर्थात्/नियुक्ति निरस्त की जा सकती है।  
I hereby declare that all statements made in this application are true, complete and correct to the best of my knowledge and belief. I understand that in the event of any information being found suppressed/false or incorrect or ineligibility being detected before or after the examination, my candidature/appointment is liable to be cancelled.

स्थान /Place: .....  
तारीख /Date: .....  
उम्मीदवार के हस्ताक्षर/केवल घसीट हस्ताक्षर में)  
Signature of candidate ( only in running hand)

\* यदि लागू न हो तो यह लाईन काट दें।  
\* Strike off this sentence if not applicable

अहस्ताक्षरित आवेदन पत्र को निरस्त कर दिया जाएगा।  
Unsigned application will be rejected

क. म. शुल्क टिकट चिपकाने के बाद इकाई द्वारा यह स्थान Space for cancellation stamp by post office after affixing CRF Stamp

22. क. म. शुल्क टिकट के लिए स्थान  
Space for CRF Stamp  
Rs. 100.00 का क. म. शुल्क टिकट यहाँ ठीक ढंग से चिपकाएं तथा डाकघर से यह करा दें जहाँ से वह खरीदा गया है।  
(स्टेपल न करें)  
Paste here firmly CRF Stamp of Rs. 100.00 denomination and get it cancelled from the post office where purchased.  
(Do not Staple)

अनुबंध-I/ANNEXURE-I

कर्मचारी चयन आयोग STAFF SELECTION COMMISSION  
RECRUITMENT OF SUB INSPECTOR IN DELHI POLICE & CAPFs,  
ASSISTANT SUB INSPECTOR IN CISF AND INTELLIGENCE OFFICER IN NCB EXAMINATION 2013

कृपया परीक्षा के नोटिस में दिए गए अनुदेशों/संलग्न विवरणिका को सावधानी पूर्वक पढ़ लें। बॉक्स ( ) में लिखने के लिए नीले या काले पेन का प्रयोग करें।  
Please read instruction in the Notice of the Examination/Annexure-II carefully. Use Blue or Black ball pen to write in the box ( )

1. परीक्षा केन्द्र का नाम / Name of the Examination Centre  2. केन्द्र कोड / Center Code

3. उम्मीदवार का पूरा नाम (अंग्रेजी में) मैट्रिकुलेशन प्रमाण पत्र में दिए गए नाम के अनुसार बड़े अक्षरों में लिखें। नाम के प्रत्येक दो भागों के बीच एक बॉक्स खाली छोड़ दें।  
Candidate's Full Name (in English). Write in Capital Letters exactly as in Matriculation Certificate. Leave a box blank between every two parts of the name.

4. पिता का नाम (अंग्रेजी के बड़े अक्षरों में लिखें) / Father's Name (Write in Capital Letters in English)

5. माता का नाम (अंग्रेजी के बड़े अक्षरों में लिखें) / Mother's Name (Write in Capital Letters in English)

7. लिंग/ Gender (लिखें- 1 स्त्री एवं 2-पुरुष) (Write 1-Female & 2- Male)

8. राष्ट्रियता/Nationality (लिखें- 1 भारतीय एवं 2-अन्य) (Write 1-Indian & 2- Others)

9. शुल्क/ Fee (लिखें- 1 शुल्क का भुगतान देय, 2-छूट का दावा किया) (Write 1-Fee paid & 2- Exemption claimed)

10. श्रेणी/ Category (लिखें 9 अना, 1अना, 2अज्ञात एवं 6 अज्ञात) (Write 9-General, 1-SC, 2-ST, 4-OBC for Delhi police only, 6-OBC for all other posts, (see para 3 of notice)

10.1 क्या आप भूतपूर्व सैनिक हैं? (लिखें- 1-Yes, 2- No) (Write 1-Yes, 2- No)

10.2 Whether Departmental Candidate of Delhi Police. (लिखें- 1-Yes, 2- No) (Write 1-Yes, 2- No)

11. Preference of Posts (A,B,C,D,E,F,G,H)

12. क्या आप सीमा में छूट चाहते हैं? (लिखें 1-हाँ, 2-नहीं) (Write 1-Yes, 2-No)

12.1 यदि हाँ, कोड अंकित करें। If yes, indicate code (दो अंकों का संख्यात्मक कोड अंकित करें) (Write two digit numeric code)

12.2. 01.01.2013 को आयु (अल्पसंख्यक के लिए 8 लिखें 1) (Age as on 01.1.2013)

वर्ष / Years  सहीना/ Months  दिन/ Days

14. क्या आप अल्पसंख्यक हैं? (अल्पसंख्यक के लिए 8 लिखें 1) (Whether belong to Minority Communities as per Govt. Orders? (Write 8 for minority community)

13.1 Whether eligible for special quota for Exs for Delhi Police (Write 1 for Yes 2 for No) (Please see para 2 of the notice)

13.2. 01.01.2013 को आयु (अल्पसंख्यक के लिए 8 लिखें 1) (Age as on 01.1.2013)

वर्ष / Years  सहीना/ Months  दिन/ Days

14. क्या आप अल्पसंख्यक हैं? (अल्पसंख्यक के लिए 8 लिखें 1) (Whether belong to Minority Communities as per Govt. Orders? (Write 8 for minority community)

15. शैक्षिक योग्यता Educational Qualification कोड अंकित करें Indicate Code

विषय कोड Subject Code

16. कार्य का अनुभव /विवरण Details of work Experience / Govt. Service rendered

संस्था का नाम Name of the Organisation(s)	पदनाम Designation	कार्य का विवरण Name of the Duty(ies)	कार्य की अवधि / से /From	कार्य का दिनांक / Period of Service तक / To

17. पता : अपने नाम सहित पत्र व्यवहार का पूरा पता अंग्रेजी के बड़े अक्षरों में या हिन्दी में नीले या काले बॉल पेन से लिखें।  
Address: Write your complete Communication Address including your Name in English Capital Letters or Hindi with Blue or Black Ball Pen.

नाम Name

पता Address

पिन PIN:

17.1 मोबाइल नं./ Mobile No. :

ई-मेल / Email :

18. फोटोग्राफ: 4 सें. मी. x 5 सें. मी. आकार का हाल ही में खींचा गया फोटोग्राफ यहाँ ठीक ढंग से चिपकाएं। (स्टेपल न करें। फोटो को सत्यापित न करवाएं) Photograph photograph (Do not staple. Do not get the Photograph attested)

19. उम्मीदवार के हस्ताक्षर/केवल घसीट हस्ताक्षर में) Signature of the Candidate in the above Box (Only in running Hand)

20. अनुक्रमांक/केवल कार्यालय प्रयोग के लिए) Roll Number ( for Office use only)



**BROCHURE****INSTRUCTIONS FOR FILLING UP THE APPLICATION**

- 1.0 The Commission uses standard application form for all its examinations. Therefore please read the instructions given in the Notice of Examination carefully before filling up the application form, in your own interest.
- 2.0 Use only blue/black ball pen to write in the boxes, i.e.
- 3.0 Instructions have been given for most items in the application itself which should be gone through carefully before filling up the boxes. For items for which instructions are not available, further instructions given below may be gone through carefully.
- 4.0 Please go through the instructions given below for filling up each item numbered in the application form:-  
**Column 1 and 2** Name of the Examination Centre and Column 2 Centre Code  
 Refer to para-7 of the Notice of the Examination.  
**Column 11.1 – Code for seeking age relaxation.**  
 Refer to para 4 B of the Notice of the Examination.  
**Column 12. Preference for Posts**

Candidates should carefully indicate preference for posts.

- A. Sub Inspector in Delhi Police(DP)  
 B. Sub-Inspector in Border Security Force (BSF)  
 C. Sub-Inspector in Central Industrial Security Force (CISF)  
 D. Assistant Sub-Inspector in Central Industrial Security Force (CISF)  
 E. Sub-Inspector in Central Reserve Police Force (CRPF)  
 F. Sub-Inspector in Indo-Tibetan Border Police Force (ITBPF)  
 G. Sub-Inspector in Sashastra Seema Bal (SSB)  
 H. Intelligence officer in Narcotics Control Bureau(NCB)

**Column 14 :** Candidates may indicate whether they belong to one of the minority communities notified by Govt. namely, Muslims, Christians, Sikhs, Buddhists or Zoroastrians (Parsees).

**Column 15. Educational Qualification from Degree or Equivalent onwards: See Annexure –X for Codes. Use OTHERS ( Code No.35) for any other qualification.**

**Subject Code :** See Annexure – XI for codes. Use OTHERS( code No.48) for other subjects. If marks are not available (some universities use grades), equivalent marks may be filled or marks column may be left blank.

**Column 17. Address for communication**

**Write your complete communication address including your Name in English in capital letters or in Hindi with blue/black ball pen. Do not forget to write 6 digits PIN Code in the boxes. All the correspondence will be made to this address.**

**Column 17.1:** E-mail ids/mobile nos. are used for communicating with the candidates in emergencies. Commission is also examining whether Admission Certificates for Written Examination, PET/ME and Interview/Personality Test can be sent through e-mail/SMS. It is in the interest of the candidate to furnish these details.

**18. Photograph**

**Paste your recent photograph of size 4cmx5cm. Do not sign on the photograph or staple and do not get the photo attested. Please note that your application shall be rejected summarily without the photograph or with mutilated/defaced photograph.**

(ii) Box in the Application Form for Roll Number to be left unfilled (blank) by the candidate.

**Column 19 & 20. Signature of Candidate**  
**Please sign in running hand only. Signature in capital letters of English or unsigned application shall not be accepted and your application shall be summarily rejected.**

**Annexure-II B****Procedure for Online Submission of Application**

On-line application will be available as below:-

**Part-I Registration:** Up to 5.00 PM on 10-04-2013.

**Part-II Registration:** Up to 5.00 PM on 12-04-2013.

2. The online submission of the application may be made at website [www.ssonline.nic.in](http://www.ssonline.nic.in). Candidate should read the instructions in this Notice carefully before making any entry or selecting options. Candidate should supply all the required details while filling up the online form. Mandatory fields are marked with \* (asterisk) sign. The filling of online application contains two parts:  
 Part I Registration  
 Part II Registration

3. In Part I registration, candidate will have to fill basic information. On submission of details, candidate shall be prompted to check the details and make any correction in the application.

4. Candidate should press "I agree" button after declaration once after he/she finds that information supplied by him/her is in order and no correction is required. Thereafter no correction/modification etc. shall be allowed.

5. Then a page with Registration No. shall be generated. Note down registration number or take out the print out of the page. The application procedure is incomplete without part II registration. Part II registration requires filling of payment details, uploading of photograph and scanned signature. Candidates may note that the Registration number given by the Commission and Transaction ID of the Bank should be properly entered in the relevant space, failing which it will not be possible to link the payment with Part I registration. On-line application will be complete only if scanned signature and photo are uploaded as per instructions.

6. Candidates who have to pay application fee can pay fee online through SBI net banking or cash through SBI bank challan.

**Annexure – II A**

7. To pay fee in cash, candidate should take print-out of challan generated online after completion of part I registration. Deposit the requisite fee in pay branch of State Bank of India and then continue with the Part II registration.
8. Those who want to pay online through SBI net banking, can go directly to part II registration after completion of part I. Candidate will have to supply registration number and date of birth to continue to Part II registration.
9. As approval of the Controller General of Accounts, Ministry of Finance, is awaited for use of credit cards/ debit cards, since December 2009, payment through these modes will not be available.
10. Those who are exempted from payment of fee can skip steps 6 to 8.
11. Then upload a recently taken scanned photograph in 8 – bit JPG format. The digital size of the file must be less than 12 kb and greater than 4 kb of resolution 100 pixel widths by 120 pixels height.
12. Then upload your scanned signature in 8 – bit JPG format. The digital size of the file must be less than 12 kb and greater than 1 kb of resolution 140 pixel width by 60 pixels height.
13. Candidates are advised to go through the instructions carefully before filling up the application form.
14. Request for change/correction in any particulars in the Application Form shall not be entertained under any circumstances. The Staff Selection Commission will not be responsible for any consequences arising out of non acceptance of any correction/addition/deletion in any particular filled in application form whatever the reasons may be.

**FORM OF CERTIFICATE TO BE SUBMITTED BY CENTRAL GOVERNMENT CIVILIAN EMPLOYEES SEEKING AGE-RELAXATION**  
**ANNEXURE-III**

(To be filled by the Head of the Office or Department in which the candidate is working).

(Please see Para 4(B) of the Notice)

It is certified that \*Shri/Smt./Km. \_\_\_\_\_ is a Central Government Civilian employee holding the post of ----- with 3 years regular service in the grade.

There is no objection to his appearing for the Sub-Inspector/Assistant Sub-Inspector examination, 2013 and/or Interview-cum-personality test of the examination.

Signature \_\_\_\_\_  
 Name \_\_\_\_\_  
 Office seal \_\_\_\_\_

**Place:**

**Date :**

(\*Please delete the words which are not applicable.)

**ANNEXURE- IV**

**Form of Certificate for serving Defence Personnel (Please see Note III Para-4 (B) of Notice for the Examination)**

I hereby certify that, according to the information available with me (No.) \_\_\_\_\_ (Rank) \_\_\_\_\_ (Name) \_\_\_\_\_ is due to complete the specified term of his engagement with the Armed Forces on the (Date) \_\_\_\_\_.

**Place:**

**Date:**

(Signature of Commanding Officer)

Office Seal:

**ANNEXURE-V**

**UNDERTAKING TO BE GIVEN BY THE CANDIDATE COVERED UNDER NOTE III PARA 4(B) OF NOTICE.**

I understand that, if selected on the basis of the recruitment/examination to which the application relates, my appointment will be subject to my producing documentary evidence to the satisfaction of the Appointing Authority that I have been duly released/retired/discharged from the Armed Forces and that I am entitled to the benefits admissible to Ex-Servicemen in terms of the Ex-Servicemen (Re-employment in Central Civil Services and Posts rules, 1979, as amended from time to time).

I also understand that I shall not be eligible to be appointed to a vacancy reserved for Ex-S in regard to the recruitment covered by this examination, if I have at any time prior to such appointment, secured any employment on the civil side (including Public Sector Undertakings, Autonomous Bodies/Statutory Bodies, Nationalized Banks, etc.) by availing of the concession of reservation of vacancies admissible to Ex-S.

I further submit the following information:

- a) Date of appointment in Armed Forces \_\_\_\_\_  
 b) Date of discharge \_\_\_\_\_  
 c) Length of service in Armed Forces \_\_\_\_\_  
 d) My last Unit / Corps \_\_\_\_\_

(Signature of the Candidate)

**Place:**

**Date:**

**ANNEXURE-VI****FORMAT FOR SC/ST CERTIFICATE**

A candidate who claims to belong to one of the Scheduled Caste or the Scheduled Tribes should submit in support of his claim an attested/certified copy of a certificate in the form given below, from the District Officer or the sub-Divisional Officer or any other officer as indicated below of the District in which his parents(or surviving parent) ordinarily reside who has been designated by the State Government concerned as competent to issue such a certificate. If both his parents are dead, the officer signing the certificate should be of the district in which the candidate himself ordinarily resides otherwise than for the purpose of his own education. Wherever photograph is an integral part of the certificate, the Commission would accept only attested photocopies of such certificates and not any other attested or true copy.

(The format of the certificate to be produced by Scheduled Castes and Scheduled Tribes candidates applying for appointment to

posts under Government of India) \_\_\_\_\_ of vil-  
 This is to certify that Shri/Shrimati/Kumari\* \_\_\_\_\_ son/daughter of \_\_\_\_\_ of the State/Union Territory\* \_\_\_\_\_ of vil-  
 belongs to the Caste/Tribes \_\_\_\_\_ which is recognized as a Scheduled Castes/Scheduled Tribes\* under:-  
 \_\_\_\_\_  
 The Constitution (Scheduled Castes) order, 1950 \_\_\_\_\_ The Constitution (Scheduled Tribes) Union  
 Territories Order, 1951\* \_\_\_\_\_  
 As amended by the Scheduled Castes and Scheduled Tribes Lists (Modification) order, 1956, the Bombay Reorganization Act, 1960  
 & the Punjab Reorganization Act, 1966, the State of Himachal Pradesh Act 1970, the North-Eastern Area (Reorganization) Act, 1971  
 and the Scheduled Castes and Scheduled Tribes Order (Amendment) Act, 1976.  
 The Constitution (Scheduled Castes) order, 1950 \_\_\_\_\_  
 The Constitution (Scheduled Tribes) order, 1950 \_\_\_\_\_  
 The Constitution (Scheduled Castes) Union Territories order, 1951\* \_\_\_\_\_  
 As amended by the Scheduled Castes and Scheduled Tribes Lists (Modification)  
 order, 1956, the Bombay Reorganization Act, 1960 & the Punjab Reorganization  
 Act, 1966, the State of Himachal Pradesh Act 1970, the North-Eastern  
 Area (Reorganization) Act, 1971 and the Scheduled Castes and Scheduled Tribes  
 Order (Amendment) Act, 1976.  
 The Constitution (Jammu & Kashmir) Scheduled Castes Order, 1956 \_\_\_\_\_  
 The Constitution (Andaman and Nicobar Islands) Scheduled Tribes Order, 1959 as  
 amended by the Scheduled Castes and Scheduled Tribes order (Amendment Act), 1976\*.  
 The Constitution (Dadra and Nagar Haveli) Scheduled Castes order 1962.  
 The Constitution (Pondicherry) Scheduled Castes Order 1964@  
 The Constitution (Scheduled Tribes) (Uttar Pradesh) Order, 1967 @  
 The Constitution (Goa, Daman & Diu) Scheduled Castes Order, 1968@  
 The Constitution (Goa, Daman & Diu) Scheduled Tribes Order 1968 @  
 The Constitution (Nagaland) Scheduled Tribes Order, 1970 @  
 The Constitution (Sikkim) Scheduled Castes Order 1978@  
 The Constitution (Jammu & Kashmir) Scheduled Tribes Order 1989@  
 The Constitution (SC) orders (Amendment) Act, 1990@  
 The Constitution (ST) orders (Amendment) Ordinance 1991@  
 The Constitution (ST) orders (Second Amendment) Act, 1991@  
 The Constitution (ST) orders (Amendment) Ordinance 1996  
 %2. Applicable in the case of Scheduled Castes, Scheduled Tribes persons who have migrated from one State/Union Territory  
 Administration.  
 This certificate is issued on the basis of the Scheduled Castes/ Scheduled Tribes certificate issued to Shri/Shrimati  
 Shri/Srimati/Kumari\* \_\_\_\_\_ of village/town\* \_\_\_\_\_ of \_\_\_\_\_ of the State/Union Territory\* \_\_\_\_\_  
 Scheduled Caste/Scheduled Tribe in the State/Union Territory\* issued by the \_\_\_\_\_  
 \_\_\_\_\_ dated \_\_\_\_\_ who belong to the \_\_\_\_\_ Caste/Tribe which is recognized as a  
 %3. Shri/Shrimati/Kumari \_\_\_\_\_ /or \_\_\_\_\_ family \_\_\_\_\_ ordinarily \_\_\_\_\_ reside(s) \_\_\_\_\_ in  
 village/town\* \_\_\_\_\_ of \_\_\_\_\_ District/Division\* \_\_\_\_\_ of the  
 State/Union Territory of \_\_\_\_\_  
**Signature** \_\_\_\_\_  
**\*\*Designation** \_\_\_\_\_  
 \_\_\_\_\_  
**Place** \_\_\_\_\_  
**Date** \_\_\_\_\_  
 \* Please delete the words which are not applicable  
 @ Please quote specific Presidential Order  
 % Delete the paragraph which is not applicable.  
**NOTE:** The term ordinarily reside(s) used here will have the same meaning as in section 20 of the Representation of the People Act,  
 1950.  
**\*\* List of authorities empowered to issue Caste/Tribe Certificates:**  
 (i) District Magistrate/Additional District Magistrate/Collector/Deputy Commissioner/Additional Deputy Commissioner/  
 Dy.Collector/1st Class Stipendiary Magistrate/Sub-Divisional Magistrate/Extra-Assistant Commissioner/Taluka Magistrate/  
 Executive Magistrate.  
 (ii) Chief Presidency Magistrate/Additional Chief Presidency Magistrate/Presidency Magistrate.  
 (iii) Revenue Officers not below the rank of Tehsildar.  
 (iv) Sub-Divisional Officers of the area where the candidate and/or his family normally resides.  
**NOTE:** ST candidates belonging to Tamil Nadu state should submit caste

certificate ONLY FROM THE REVENUE DIVISIONAL OFFICER. **ANNEXURE-VII**  
**(FORMAT OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES APPLYING FOR APPOINTMENT TO POSTS UNDER THE GOVERNMENT OF INDIA)**  
 This is to certify that \_\_\_\_\_ son/ daughter of \_\_\_\_\_ in the  
 of \_\_\_\_\_ District/Division \_\_\_\_\_ belongs to the \_\_\_\_\_  
 \_\_\_\_\_ State \_\_\_\_\_  
 Community which is recognized as a backward class under:  
 i) Resolution No. 12011/68/93-BCC dated the 10th September, 1993, published in the Gazette of India Extraordinary – Part I,  
 Section I, No. 186 dated 13th September, 1993.  
 ii) Resolution No. 12011/9/94-BCC, dated 19.10.1994 published in Gazette of India extraordinary Part I Section I No. 163, dated  
 20th October, 1994.  
 iii) Resolution No. 12011/7/95-BCC dated the 24th May 1995 Published in the Gazette of India extraordinary Part-I Section I No.  
 88 dated 25th May, 1995.  
 iv) Resolution No. 12011/96/94-BCC dated 9th March, 1996.  
 v) Resolution No. 12011/44/96-BCC, dated the 6th December, 1996, published in the Gazette of India – Extraordinary-part I,  
 Section-I, No. 210, dated the 11th December, 1996.  
 vi) Resolution No. 12011/13/97-BCC dated 3rd December, 1997.  
 vii) Resolution No. 12011/99/94-BCC dated 11th December, 1997.  
 viii) Resolution No. 12011/68/98-BCC dated 27th October, 1999.  
 ix) Resolution No. 12011/88/98-BCC dated 6th December, 1999, published in the Gazette of India, Extra Ordinary Part-I, Section-  
 I No.270, 6th December, 1999.  
 x) Resolution No. 12011/36/99-BCC dated 4th April, 2000, published in the Gazette of India, Extra Ordinary Part-I, Section-I, No.71  
 dated 4th April, 2000.  
 xi) Resolution No. 12011/44/99-BCC dated 21.9.2000, published in the Gazette of India, Extra Ordinary Part-I, Section-I, No.210  
 dated 21.9.2000.  
 xii) Resolution No. 12015/9/2000-BCC dated 06th September 2001 published in the Gazette of India, Extra Ordinary Part-I Section-  
 1 No.246 dated 06th September 2001.  
 xiii) Resolution No. 12011/1/2001-BCC dated 19th June 2003 published in the Gazette of India, Extra Ordinary Part-I Section-1  
 No. 151 dated 20th June 2003.  
 xiv) Resolution No. 12011/42002-BCC dated 13th January 2004 published in the Gazette of India, Extra Ordinary Part-I Section-1  
 No.9 dated 13th January 2004.  
 xv) Resolution No. 12011/142002-BCC dated 12th March 2007 published in the Gazette of India, Extra Ordinary Part-I Section-1  
 No.67 dated 12th March, 2007.  
 Shri \_\_\_\_\_ and/or his family ordinarily reside(s) in the \_\_\_\_\_ District/Division of the \_\_\_\_\_ State.  
 This is also to certify that he/she does not belong to the persons/sections (Creamy Layer) mentioned in column 3 of the Schedule to  
 the Government of India, Department of Personnel & Training OM No. 36012/22/93-Estt. (SCT) dated 08.09.1993 and modified vide  
 Govt. of India Deptt. of Personnel and Training OM No. 36033/3/2004-Estt(Res) dated 09.03.2004 & 14.10.2008  
**Dated:** \_\_\_\_\_  
**Seal:** \_\_\_\_\_  
**Note-I** (a) The term 'Ordinarily' used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.  
 (b) The authorities competent to issue Caste Certificate are indicated below:-  
 (i) District Magistrate/Additional Magistrate/Collector/Dy. Commissioner/Additional Deputy Commissioner/Deputy Collector/1st Class  
 Stipendiary Magistrate/ Sub-Divisional Magistrate/Taluka Magistrate/ Executive Magistrate/Extra Assistant Commissioner (not below  
 the rank of 1st Class Stipendiary Magistrate).  
 (ii) Chief Presidency Magistrate /Additional Chief Presidency Magistrate/ Presidency Magistrate.  
 (iii) Revenue Officer not below the rank of Tehsildar.  
 (iv) Sub-Divisional Officer of the area where the candidate and/or his family resides.  
**NOTE-II:** The Candidate should furnish the relevant OBC certificate in the format prescribed for Central Government jobs as per  
 Annexure-VII issued by the Competent authority at the time of interview.  
**Note-III:** The Certificates should have been obtained within three years before closing date of receipt of application i.e.12-04-2013.  
 Certificate issued upto the last tier of examination i.e. interview will also be accepted by the Commission.  
**ANNEXURE-VIII**  
**FORM OF CERTIFICATE TO BE SUBMITTED BY THOSE CANDIDATES WHO INTEND TO AVAIL RELAXATION IN HEIGHT OR CHEST MEASUREMENT**  
 Certified that Shri \_\_\_\_\_ S/o Shri \_\_\_\_\_ is permanent resident of village \_\_\_\_\_  
 ( Please see Note below Para 10(A) /10(B) of the Notice for the Examination ) \_\_\_\_\_ of \_\_\_\_\_ State.  
 2. It is further certified that :  
 \* Residents of entire area mentioned above are considered as \_\_\_\_\_ ( Garhwali, Kumaoni, Dogras, Marathas,  
 Sikkimies ) for relaxation in height measurement for recruitment in the para military forces of the Union of India.  
 \* he / she belongs to Himachal Pradesh / Leh and Ladakh / Kashmir Valley / North-Eastern States which is considered for relax-  
 ation in height measurement for recruitment in the para military forces of Union of India.  
 \* he / she belongs to Scheduled Tribe.  
**Date:** \_\_\_\_\_  
**Place:** \_\_\_\_\_ District Magistrate / Sub-Division Magistrate / Tehsildar  
 \* Delete whichever is not applicable. **Continued on page 39**

## FORM OF CERTIFICATE TO BE SUBMITTED BY (DEPARTMENTAL CANDIDATES)

( TO BE FILLED BY THE HEAD OF THE OFFICE )

(PLEASE SEE PARA 4(B) OF THE NOTICE FOR THE EXAMINATION)

Certified that as per entire made in the Service Book, No. \_\_\_\_\_ Rank \_\_\_\_\_ Name \_\_\_\_\_ who was appointed in the \_\_\_\_\_ on \_\_\_\_\_ in the rank of \_\_\_\_\_ is continuously serving in the \_\_\_\_\_ and has completed three years regular service. It is also certified that he has completed the period of probation satisfactorily on \_\_\_\_\_. He is presently posted in this unit \_\_\_\_\_ (name of the unit). During his service he has been awarded \_\_\_\_\_ major punishments and \_\_\_\_\_ minor punishments.

Signature of Head of Office  
Name \_\_\_\_\_

Office Seal

ANNEXURE-X

### Essential Educational Qualification Code

Educational Qualification	Code
BA	05
BA (Hons.)	06
B. Com.	07
B.Com. (Hons.)	08
B.Sc.	09
B.Sc. (Hons.)	10
B. Ed.	11
LLB	12
BE	13
B. Tech	14
AMIE (Part A & Part B)	15
B. Sc. (Engg.)	16
BCA	17
BBA	18
Graduation issued by Defence (Indian Army, Air Force, Navy)	19

### Subject Code for Educational Qualification

Subject of Educational Qualification	Code
History	01
Political Science	02
Economics	03
English Literature	04
Hindi Literature	05
Geography	06
Commerce	07
Law	08
Physics	09
Chemistry	10
Mathematics	11
Statistics	12
Botany	13
Zoology	14
Agriculture Science	15
Civil Engineering	16
Electrical Engineering	17
Mechanical Engineering	18
Electronics Engineering	19
Electronics & Power Engineering	20
Electronics & Communication Engineering	21
Electronics & Instrumentation Engineering	22
Agriculture Engineering	23
Computer Science	24

### Annexure-XI

Subject of Educational Qualification	Code
Computer Application	25
Information Technology	26
Library Science	27
Accountancy	28
Work Accountancy	29
Business Administration	30
Mass Communication	31
Journalism	32
Mass Communication & Journalism	33
Pharmacy	34
Photography	35
Printing Technology	36
Nursing	37
Assamese	38
Bengali	39
Malayalam	40
Telegu	41
Kannada	42
Tamil	43
Marathi	44
Gujrati	45
Urdu	46
Sanskrit	47
Others	48

EN 50/96



# RAILWAY RECRUITMENT BOARD

## S.C.O. 34, 2nd FLOOR, SECTOR 7-C, CHANDIGARH-160019

Website: [www.rrbcdg.gov.in](http://www.rrbcdg.gov.in)

### FINAL RESULT FOR THE POSTS OF JUNIOR ENGINEERS/DMS

On the basis of Written Examination held on 09-09-2012 and Candidature & Documents verification held on 14-02-2013 to 16-02-2013 at Chandigarh by this Board for the following categories/posts of Centralized Employment Notice No. 01/2012, the candidates bearing following Roll numbers have been found provisionally selected and placed on panel. This list does not show merit position of candidates.

(Please prefix Digit "17121" before each Roll Number)

#### POST - JUNIOR ENGINEER (WORKS) - CAT 26

261000056 2610000534 2610000973 261001048 261001254 261001386 261001533 261001820 261001830 261001840 262002271 262002274  
262002531 262002535 262002569 262002678 262002745 262002981 263003433 263003441 263003478 263003498 264003911 264003927 264004031  
264004080 264004091 264004125 264004162 264004198 264004336 264004391 264004589 264004645 264004646 264004750 264004869 (Total 38)  
(Result of 07 candidates is with-held for further scrutiny)

#### POST - JUNIOR ENGINEER (BRIDGE) - CAT 27

271000040 271000096 271000126 271000157 271000159 271000270 271000415 271000462 272000768 272000780 272000783 272000901 273001259  
273001303 274001538 274001564 274001595 274001598 274001665 274001718 275002002 (Total 21)  
(Result of 01 candidate is with-held for further scrutiny)

#### POST - JUNIOR ENGINEER (ESTIMATOR/DRAWING/DESIGN CIVIL) /DRAWING CIVIL (TRACK MACHINE) - CAT 28

281000021 281000037 281000073 281000109 281000259 281000261 282000526 282000560 282000571 282000614 283000905 283000920 284001127  
284001150 284001167 284001179 284001193 284001206 284001216 284001241 284001256 (Total 21)  
(Result of 01 candidate is with-held for further scrutiny)

#### POST - JUNIOR ENGINEER ELECTRICAL/ELECTRICAL GENERAL/ELECTRICAL TRD/ELECTRICAL AIR CONDITIONING - CAT 42

421000258 421000399 421000494 421000776 421000861 421000989 421004739 421004871 421004880 421005042 422005629 422005742 422006702  
422006849 422007018 422007192 422007247 422007630 423008562 423008571 423008691 424008994 424009370 424009551 424009835  
424010176 424010605 424011018 425011524 425011545 425011549 425011564 (Total 33)  
(Result of 02 candidates is with-held for further scrutiny)

#### POST - JUNIOR ENGINEER (SIGNAL) - CAT 47

471001252 471001255 471001640 471001916 471002035 471002277 471002663 471002826 471003057 471003103 471003121 471003650 472005069  
472005152 473006561 474007352 474007503 474007732 474007835 474007846 474008641 474008837 474009129 478009704 (Total 24)  
(Result of 03 candidates is with-held for further scrutiny)

#### POST - JUNIOR ENGINEER (TELECOMMUNICATION) - CAT 48

481000492 481000708 481001407 481002189 481002376 481003198 481003235 481003942 482004854 482005178 482005455 483006060 483006119  
483006123 484006331 484006850 484007250 484007598 484007802 484008263 484008289 484008318 484008485 484008635 484008738  
484008751 485009018 485009020 (Total 29)  
(Result of 02 candidates is with-held for further scrutiny)

#### POST - JUNIOR ENGINEER DRAWING/DRAWING & DESIGN/SIGNAL/S&T - CAT 52

521000018 521000045 521000195 522000593 522000602 522000614 523000825 524001016 524001056 524001091 (Total 11)

#### POST - JUNIOR ENGINEER (TRACK MACHINE) - CAT 54

541000710 541000848 541001245 541001266 541001527 541002195 541002404 541002848 541003677 541003922 541004142 541004278 541004287  
541004673 542005862 542006553 542007265 542007576 542007831 542008072 542008168 542008428 543008929 543008957 543008978  
543009117 543009166 544009406 544009660 544009951 544010006 544010079 544010334 544010387 544010586 544010589 544010620 544010730  
544011029 544011038 544011081 544011737 544011873 544011966 544012173 544012236 544012285 544012306 544012484 544012772 545013440  
545013468 545013471 5468013815 (Total 55)  
(Result of 11 candidates is with-held for further scrutiny)

#### POST - DEPOT MATERIAL SUPERINTENDENT - CAT 58

581000120 582000883 584001378 584001481 584001482 (Total 5)

(Result of 01 candidate is with-held for further scrutiny)

The individual letters to the candidates are being sent separately. Appointment letters to the candidates will be issued by Northern Railway subject to his/her suitability in all respects, availability of vacancies, final verification of certificates and Medical fitness etc, as per rules. However, RRB will not be responsible for the postal delay or wrong delivery, if any, in case of non-receipt of letter. While every care has been taken in preparing the above result, the possibility of any inadvertent error cannot be ruled out. The Board do not take responsibility for such errors and reserve the right to rectify the same later on.

**IMPORTANT : - Candidates are advised to beware of fake Website which may be of mis-guiding nature. Candidates are also advised to Log on to only the authorized Website of Railway Recruitment Board and refer to instructions published in Centralized Employment Notifications.**

Date: 27-02-2013

"SERVICE WITH A SMILE"

CHAIRMAN



सत्यमेव जयते

# UNION PUBLIC SERVICE COMMISSION

EXAMINATION NOTICE NO.05/2013-IFoS

DATED 05.03.2013

(LAST DATE FOR SUBMISSION OF APPLICATIONS : 04.04.2013)

## INDIAN FOREST SERVICE EXAMINATION, 2013

(Commission's website - [www.upsc.gov.in](http://www.upsc.gov.in))

**F.No.13/2/2013-EI(B):** The Union Public Service Commission will hold a Screening Test for selection to Indian Forest Service (Main) Examination, 2013 through Civil Services (Preliminary) Examination, 2013 which will be held on **26th May, 2013**, in accordance with the Rules published by the Ministry of Environment and Forests in the Gazette of India dated the **5th March 2013**.

(A) The Preliminary Examination will be held at the following Centers:

AGARTALA	GANGTOK	PATNA
AHMEDABAD	HYDERABAD	PUDUCHERRY
AIZAWL	IMPHAL	PORT BLAIR
ALIGARH	ITANAGAR	RAIPUR
ALLAHABAD	JAIPUR	RANCHI
AURANGABAD	JAMMU	SAMBALPUR
BANGALORE	JODHPUR	SHILLONG
BAREILLY	JORHAT	SHIMLA
BHOPAL	KOCHI	SRINAGAR
CHANDIGARH	KOHIMA	THIRUVANANTHAPURAM
CHENNAI	KOLKATA	THAPURAM
CUTTACK	LUCKNOW	TIRUPATI
DEHRADUN	MADURAI	UDAIPUR
DELHI	MUMBAI	VISHAKHAPATNAM
DHARWAR	NAGPUR	PATNAM
DISPUR	PANAJI (GOA)	

The centres and the date of holding the examination as mentioned above are liable to be changed at the discretion of the Commission. Applicants should note that there will be a ceiling on the number of candidates allotted to each of the Centres, except Chennai, Delhi, Dispur, Kolkatta and Nagpur. Allotment of Centres will be on the "first-apply-first allot" basis, and once the capacity of a particular Centre is attained, the same will be frozen. Applicants, who cannot get a Centre of their choice due to ceiling, will be required to choose a Centre from the remaining ones. Applicants are, thus, advised that they may apply early so that they could get a Centre of their choice.

**NB: Notwithstanding the aforesaid provision, Commission reserve the right to change the Centres at their discretion if the situation demands.**

Blind candidates will, however, be required to take the examination at any one of the seven centres viz. Chennai, Delhi, Hyderabad, Kolkata, Lucknow, Dispur and Mumbai. Candidates admitted to the examination will be informed of the time table and place or places of examination.

The candidates should note that no request for change of centre will be entertained.

### (B) PLAN OF EXAMINATION

The Indian Forest Service Examination will consist of two successive stages (vide Appendix I Section-I below).

(i) Civil Services (Preliminary) Examination (Objective type) for the selection of candidates for the Indian Forest Service (Main) Examination; and

(ii) Indian Forest Service (Main) Examination (Written and Interview) for the selection of candidates for the Indian Forest Service.

Applications are now invited for the Preliminary Examination only. Candidates who will be declared by the Commission to have qualified for admission to the Indian Forest Service (Main) Examination will have to apply again, in the Online Detailed Application Form which would be made available on the Website of the Commission after declaration of Results of Preliminary Examination. The Main Examination is likely to be held in September/October, 2013.

2. The number of vacancies to be filled on the results of the examination is expected

### IMPORTANT

- **CANDIDATES SHOULD NOTE THAT THE GOVERNMENT HAS CHANGED THE PATTERN OF INDIAN FOREST SERVICE EXAMINATION FROM THE CURRENT YEAR BY INTRODUCING A COMPONENT OF SCREENING MECHANISM THROUGH CIVIL SERVICES (PRELIMINARY) EXAMINATION. ALL THE CANDIDATES APPLYING FOR INDIAN FOREST SERVICE EXAMINATION ARE THEREFORE REQUIRED TO APPEAR IN THE CIVIL SERVICES (PRELIMINARY) EXAMINATION AND QUALIFY THE SAME FOR GOING TO THE SECOND STAGE OF INDIAN FOREST SERVICE MAIN EXAMINATION (WRITTEN AND INTERVIEW).**
- **CANDIDATES DESIROUS OF APPLYING FOR INDIAN FOREST SERVICE EXAMINATION AS WELL AS FOR THE CIVIL SERVICES EXAMINATION CAN APPLY THROUGH A COMMON ONLINE APPLICATION FORM SUBJECT TO MEETING THE REQUISITE ELIGIBILITY CRITERIA BY THEM.**

1. **CANDIDATES TO ENSURE THEIR ELIGIBILITY FOR THE EXAMINATION:**

Candidates applying for the examination should ensure that they fulfill all eligibility conditions for admission to the Examination. Their admission at all the stages of the examination will be purely provisional subject to satisfying the prescribed eligibility conditions. Mere issue of Admission Certificate to the candidate will not imply that his/her candidature has been finally cleared by the Commission. Verification of eligibility conditions with reference to original documents is taken up only after the candidate has qualified for Interview/Personality Test.

#### 2. HOW TO APPLY :

Candidates are required to apply online only by using the website [www.upsonline.nic.in](http://www.upsonline.nic.in). Brief instructions for filling up the online Application Form have been given in Appendix-II. Detailed instructions are available on the above mentioned website.

#### 3. LAST DATE OF SUBMISSION OF APPLICATIONS:

The Online Applications can be filled upto **04th April 2013 till 11.59 PM**, after which the link will be disabled.

4. **The eligible candidates shall be issued an e-Admission Certificate three weeks before the commencement of the examination. The e-Admission Certificate will be made available in the UPSC website [[www.upsc.gov.in](http://www.upsc.gov.in)] for downloading by candidates. No Admission Certificate will be sent by post. All the applicants are required to provide valid active E-Mail I.D. while filling up Online Application Form as the Commission may use electronic mode for contacting them at different stages of examination process.**

#### 5. PENALTY FOR WRONG ANSWERS :

Candidates should note that there will be penalty (**Negative Marking**) for wrong answers marked by a candidate in the Objective Type Question Papers.

6. For both writing and marking answers in the OMR sheet [Answer Sheet], candidates must use **black ball pen** only. Pens with any other colours are prohibited. Do not use Pencil or Ink pen. Candidates are further advised to read carefully the "Special Instructions" contained in Appendix-III of the Notice.

#### 7. FACILITATION COUNTER FOR GUIDANCE OF CANDIDATES :

In case of any guidance/information/clarification regarding their applications, candidature etc. candidates can contact UPSC's Facilitation Counter near 'C' Gate of its campus in person or over **Telephone No. 011-23385271/011-23381125/011-23098543** on working days between 10.00 hrs and 17.00 hrs.

#### 8. Mobile Phones Banned:

(a) Mobile phones, pagers or any other communication devices are not allowed inside the premises where the examination is being conducted. Any infringement of these instructions shall entail disciplinary action including ban from future examinations.

(b) Candidates are advised in their own interest not to bring any of the banned item including mobile phones/pagers or any valuable/costly items to the venue of the examination, as arrangement for safe-keeping can not be assured. Commission will not be responsible for any loss in this regard.

**CANDIDATES ARE REQUIRED TO APPLY ONLINE ONLY.  
NO OTHER MODE IS ALLOWED FOR SUBMISSION OF APPLICATION.**

to be approximately **85**. The number of vacancies is liable to alteration. Reservation will be made for candidates belonging to Scheduled Castes, Scheduled Tribes, Other Backward Classes and Physically Handicapped Categories in respect of vacancies as may be fixed by the Government.

**Note : As per the information received from the Ministry of Environment Forest, 1 vacancy each has been kept reserved by them for Partially Blind and Hearing Impaired categories. However the vacancies indicated are liable to further alteration.**

A candidate will be eligible to get the benefit of community reservation only in case the particular caste to which the candidate belongs is included in the list of reserved communities issued by the Central Government. If a candidate indicates in his/her Application Form for Indian Forest Service Examination that he/she belongs to General Category but subsequently writes to the Commission to change his/her category, to a reserved one, such request shall not be entertained

by the Commission. Similar principle will be followed for physically disabled category also. While the above principle will be followed in general, there may be a few cases where there was a little gap (say 2-3 months) between the issuance of a Government Notification enlisting a particular community in the list of any of the reserved communities and the date of submission of the application by the candidate. In such cases the request of change of community from general to reserved may be considered by the Commission on merit. In case of a candidate unfortunately becoming physically disabled during the course of the examination, the candidate should produce valid documents to enable the Commission to take a decision in the matter on merit.

**The closing date fixed for the receipt of the application will be treated as the date for determining the OBC status (including that of creamy layer) of the candidates.**

#### 3. ELIGIBILITY CONDITIONS :

##### (i) NATIONALITY :

A candidate must be either :-

- (a) A citizen of India, or
- (b) a subject of Nepal, or
- (c) a subject of Bhutan, or
- (d) a Tibetan refugee who came over to India before 1st January, 1962 with the intention of permanently settling in India.

Or  
(e) a person of Indian origin who has migrated from Pakistan, Burma, Srilanka, East African countries of Kenya, Uganda, the United Republic of Tanzania, Zambia, Malawi, Zaire, Ethiopia and Vietnam with the intention of permanently settling in India.

Provided that a candidate belonging to categories (b), (c), (d) and (e) shall be a person in whose favour a certificate of eligibility has been issued by the Government of India.

A candidate in whose case a certificate of eligibility is necessary, may be admitted to the examination but the offer of appointment may be given only after the necessary eligibility certificate has been issued to him/her by the Government of India.

##### (ii) AGE LIMITS :

(a) A candidate must have attained the age of 21 years and must not have attained the age of 30 years on **1st August, 2013**, i.e. he must have been born not earlier than **2nd August, 1983** and not later than **1st August, 1992**.

(b) The upper age limit prescribed above will be relaxable:-

- (i) upto a maximum of five years if a candidate belongs to a Scheduled Caste or a Scheduled Tribe.
- (ii) upto a maximum of three years in the case of candidates belonging to Other Backward Classes who are eligible to avail of reservation applicable to such candidates.
- (iii) upto a maximum of five years if a candidate had ordinarily been domiciled in the State of Jammu & Kashmir during the period from the 1st January, 1980 to the 31st day of December, 1989.
- (iv) upto a maximum of three years in the case of Defence Services personnel disabled in operations during hostilities with any foreign country or in a disturbed area and released as a consequence thereof:
- (v) upto a maximum of five years in the case of ex-servicemen including Commissioned Officers and ECOs/SSCOs who have rendered at least five years Military Service as on 1st August, 2013 and have been released (i) on completion of assignment (including those whose assignment is due to be completed within one year from 1st August, 2013) otherwise than by way of dismissal or discharge on account of misconduct or inefficiency, or (ii) on account of physical disability attributable to Military Service, or (iii) on invalidment.
- (vi) Upto a maximum of five years in the case of ECOs/SSCOs who have completed an initial period of assignment of five years of Military Service as on 1st August, 2013 and whose assignment has been extended beyond five years and in whose case the Ministry of Defence issues a certificate that they can apply for civil employment and that they will be released on three month's notice on selection from the date of receipt of offer of appointment.
- (vii) upto a maximum of 10 years in the case of blind, deaf-mute and Orthopaedically handicapped persons.

Continued

**Government strives to have a workforce which reflects gender balance and women candidates are encouraged to apply**



**NOTE I-**Candidates belonging to the Scheduled Castes, the Scheduled Tribes and the Other Backward Classes who are also covered under any other clauses of para 3(ii) (b) above, viz. those coming under the category of Ex-servicemen, persons domiciled in the State of J & K, blind, deaf-mute and orthopaedically handicapped etc. will be eligible for grant of cumulative age-relaxation under both the categories.

**NOTE II-**The term ex-servicemen will apply to the persons who are defined as ex-servicemen in the Ex-servicemen (Re-employment in Civil Services and Posts) Rules, 1979, as amended from time to time.

**NOTE III-** The age concession under Para 3(ii)(b)(v) and (vi) will not be admissible to Ex-Servicemen and Commissioned Officers including ECOs/SSCOs, who are released on own request.

**NOTE IV-** Notwithstanding the provision of age-relaxation under para 3(ii) (b) (vii) above, a physically disabled candidate will be considered to be eligible for appointment only if he/she (after such physical examination as the Government or appointing authority, as the case may be, may prescribe) is found to satisfy the requirements of physical and medical standards for the concerned Services/posts to be allocated to the physically disabled candidates by the Government.

**SAVE AS PROVIDED ABOVE THE AGE LIMITS PRESCRIBED CAN IN NO CASE BE RELAXED.**

The date of birth accepted by the Commission is that entered in the Matriculation or Secondary School Leaving Certificate or in a certificate recognized by an Indian University as equivalent to Matriculation or in an extract from a Register of Matriculates maintained by a University, which extract must be certified by the proper authority of the University or in the Higher Secondary or an equivalent examination certificate.

**These certificates are required to be submitted only at the time of applying for the Indian Forest Service (Main) Examination.**

No other document relating to age like horoscopes, affidavits, birth extracts from Municipal Corporation, service records and the like will be accepted.

The expression Matriculation/Secondary Examination Certificate in this part of the instruction includes the alternative certificates mentioned above.

**NOTE 1: Candidates should note that only the Date of Birth as recorded in the Matriculation/ Secondary Examination Certificate or an equivalent certificate on the date of submission of applications will be accepted by the Commission and no subsequent request for its change will be considered or granted.**

**NOTE 2 : Candidates should also note that once a Date of Birth has been claimed by them and entered in the records of the Commission for the purpose of admission to an Examination, no change will be allowed subsequently (or at any other Examination of the Commission) on any grounds whatsoever.**

**Note 3 : The candidate should exercise due care while entering their date of birth in the Online Application Form. If on verification at any subsequent stage, any variation is found in their date of birth from the one entered in their matriculation or equivalent Examination certificate, disciplinary action will be taken against them by the Commission under the Rules.**

**(iii) MINIMUM EDUCATIONAL QUALIFICATIONS:**

The candidate must hold a Bachelor's degree with at least one of the subjects namely Animal Husbandry & Veterinary Science, Botany, Chemistry, Geology, Mathematics, Physics, Statistics and

Zoology or a Bachelor's degree in Agriculture, Forestry or in Engineering of any of Universities incorporated by an Act of the Central or State Legislature in India or other educational institutions established by an Act of Parliament or declared to be deemed as a University Under Section 3 of the University Grants Commission Act, 1956, or possess an equivalent qualification.

**Note I :** Candidates who have appeared at an examination the passing of which would render them educationally qualified for the Commission's examination but have not been informed of the results as also the candidates who intend to appear at such a qualifying examination will also be eligible for admission to the Preliminary Examination. All candidates who are declared qualified by the Commission for taking the Indian Forest Service (Main) Examination will be required to produce proof of passing the requisite examination with their application for the Main Examination failing which such candidates will not be admitted to the Indian Forest Service Main Examination. The applications for the Main Examination will be called sometime in the month of August, 2013 through on-line mode.

**NOTE II :** In addition, the candidates who possess qualification equivalent to those specified in Rule 7 will be required to produce a certificate from University incorporated by an Act of the Central or State Legislature in India or other educational institutions established by an Act of the Parliament or declared to be deemed as a University under Section 3 of the University Grants Commission Act, 1956 clarifying that the degree is at par with the Bachelor's degree specified in Rule 7 along with their application for the Main Examination failing which such candidate will not be admitted to the Main Examination.

**NOTE III :** In exceptional cases the Union Public Service Commission may treat a candidate who has not any of the foregoing qualifications as a qualified candidate provided that he/she has passed examination conducted by the other Institutions, the standard of which in the opinion of the Commission justifies his/her admission to the examination.

**(iv) NUMBER OF ATTEMPTS :**

Every candidate appearing at the Examination, who is otherwise eligible, shall be permitted four attempts at the examination.

The restriction is effective from the examination held in 1984.

Provided that this restriction on the number of attempts will not apply in the case of Scheduled Caste and Scheduled Tribe candidates who are otherwise eligible.

Provided further that the number of attempts permissible to candidates belonging to Other Backward Classes, who are otherwise eligible, shall be seven.

Provided further that a physically handicapped will get as many attempts as are available to other non-physically handicapped candidates of his or her community, subject to the condition that a physically handicapped candidate belonging to the General Category shall be eligible for seven attempts. The relaxation will be available to the physically handicapped candidates who are eligible to avail of reservation applicable to such candidates.

**NOTE :**

**(i)** An attempt at a Preliminary Examination shall be deemed to be an attempt at the Examination.

**(ii)** If a candidate actually appears in any one paper in the Preliminary Examination, as a candidate for the Indian Forest Service (Main) Examination, he/she shall be deemed to have made an attempt at the Examination.

**(iii)** Notwithstanding the disqualification/cancellation of candidature the fact of appearance of the candidate at the exam-

ination will count as an attempt.

**(V) PHYSICAL STANDARDS :**

Candidates must be physically fit according to physical standards for admission to Indian Forest Service Examination, 2013 as per regulations given in Appendix-III of the rules for the Indian Forest Service Examination, 2013 published in Gazette of India dated 05th March, 2013.

**4. FEE**

Candidates applying (excepting Female/SC/ST/PH candidates who are exempted from payment of fee) for Civil Services (Preliminary) Examination are required to pay a fee of Rs.100/- (Rupees One Hundred only) either by depositing the money in any Branch of SBI by cash, or by using net banking facility of SBI, State Bank of Bikaner & Jaipur/State Bank of Hyderabad/State Bank of Mysore/State Bank of Patiala/State Bank of Travancore or by using Visa/Master Credit/Debit card. For the applicant in whose case payments details have not been received from the bank, they will be treated as fictitious payment cases and a list of all such applicants shall be made available on the Commission's website within two weeks after the last day of submission of Online Application. These applicants shall also be intimated through e-mail to submit copy of proof of their payment to the Commission at the address mentioned in the e-mail. The applicant shall be required to submit the proof within 10 days from the date of such communication either by hand or by speed post to the Commission. In case, no response is received from the applicant, their application shall be summarily rejected and no further correspondence shall be entertained in this regard.

All female candidates and candidates belonging to Scheduled Castes/Scheduled Tribes/Physically Handicapped categories are not required to pay any fee. No fee exemption is, however, available to OBC candidates and they are required to pay the full prescribed fee. There will be separate examination fee for Indian Forest Service (Main) Examination, for those who will qualify for the same through the Civil Services (Preliminary) Examination, for which appropriate notice will be issued at the time of filling up of on-line application for the second stage.

Physically Disabled Persons are exempted from the payment of fee provided they are otherwise eligible for appointment to the Services/Posts to be filled on the results of this examination on the basis of the standards of medical fitness for these Services/Posts (including any concessions specifically extended to the physically disabled). A physically disabled candidate claiming age relaxation/fee concession will be required by the Commission to submit along with his/her Detailed Application Form, a certified copy of the certificate from a Government Hospital/Medical Board in support of his/her claim for being physically disabled.

**NOTE :** Notwithstanding the aforesaid provision for age relaxation/fee exemption, a physically disabled candidate will be considered to be eligible for appointment only if he/she (after such physical examination as the Government or the appointing authority, as the case may be, may prescribe) is found to satisfy the requirements of physical and medical standards for the concerned Services/Posts to be allocated to Physically Disabled candidates by the Government.

**NOTE I : APPLICATIONS WITHOUT THE PRESCRIBED FEE (UNLESS REMISSION OF FEE IS CLAIMED) SHALL BE SUMMARILY REJECTED.**

**NOTE II :** Fee once paid shall not be refunded under any circumstances nor can the fee be held in reserve for any other examination or selection.

**NOTE III :** If any candidate who took the Indian Forest Service Examination held in 2012 wishes to apply for admission to this examination, he/she must submit his/her

application so as to reach the Commission's Office by the prescribed date without waiting for the results or an offer of appointment.

**5. HOW TO APPLY :**

(a) Candidates are required to apply Online using the link [www.upsconline.nic.in](http://www.upsconline.nic.in) for **Civil Services (Preliminary) Examination which will act as a screening mechanism for selection of candidates for the Indian Forest Service (Main) Examination. Candidates who wish to apply for Civil Services Examination also, [subject to their satisfying the prescribed eligibility conditions] have to apply once by appropriately indicating in the on-line application form that they intend to appear for both the Indian Forest Service Examination and the Civil Services Examination. Candidates, who will qualify for the Indian Forest Service (Main) Examination, will have to fill in a Detailed Application Form subsequently as per further instructions to be provided to the candidates through the website (www.upsconline.nic.in) of the Commission.** Detailed instructions for filling up Online Applications are available on the above mentioned website.

The applicants are advised to submit only single application, however, if due to any unavoidable situation, if he/she submits another/multiple applications, then he/she must ensure that application with the higher RID is complete in all respects like applicants details, examination centre, photograph, signature, fee etc. The applicants who are submitting multiple applications should note that only the applications with higher RID (Registration ID) shall be entertained by the Commission and fee paid against one RID shall not be adjusted against any other RID.

**(b)** All candidates, whether already in Government Service, or in Government owned industrial undertakings or other similar organizations or in private employment should submit their applications direct to the Commission.

Persons already in Government service, whether in a permanent or temporary capacity or as work charged employees other than casual or daily rated employees or those serving under Public Enterprises are however, required to inform their Head of Office/Department that they have applied for the Examination.

Candidates should note that in case a communication is received from their employer by the Commission withholding permission to the candidates applying for/ appearing at the examination, their applications will be liable to be rejected/candidature will be liable to be cancelled.

**NOTE I:** While filling in his/her Application Form, the candidate should carefully decide about his/her choice for the centre and optional subjects for the Indian Forest Service (Main) Examination. More than one application from a candidate giving Different centres and/or optional subjects will not be accepted in any case. Even if a candidate sends more than one completed application, the Commission will accept only one application at their discretion and the Commission's decision in the matter shall be final. If any candidate appears at a centre/optional subjects other than the those indicated by the Commission in his/her Admission Certificate, the papers of such a candidate will not be valued and his/her candidature will be liable to cancellation.

**NOTE 2 : Candidates are not required to submit along with their applications any certificate in support of their claims regarding Age, Educational Qualifications, Scheduled Castes/Scheduled Tribes/ Other Backward Classes and Physically disabled etc. which will be verified at the time of the Main examination only. The candidates applying for the examination should ensure that they fulfill all the eligibility**

conditions for admission to the Examination. Their admission at all the stages of examination for which they are admitted by the Commission viz. Preliminary Examination, Main (Written) Examination and Interview Test will be purely provisional, subject to their satisfying the prescribed eligibility conditions. If on verification at any time before or after the Preliminary Examination, Main (written) Examination and Interview Test, it is found that they do not fulfill any of the eligibility conditions; their candidature for the examination will be cancelled by the Commission.

If any of their claims is found to be incorrect, they may render themselves liable to disciplinary action by the Commission in terms of Rule 12 of the Rules for the Indian Forest Service Examination, 2013 reproduced below : A candidate who is or has been declared by the Commission to be guilty of :

(i) Obtaining support for his candidature by the following means, namely :-

- (a) offering illegal gratification to, or
- (b) applying pressure on, or
- (c) blackmailing, or threatening to blackmail any person connected with the conduct of the examination, or
- (ii) impersonating, or
- (iii) procuring impersonation by any person, or
- (iv) submitting fabricated documents or documents which have been tampered with, or
- (v) making statements which are incorrect or false or suppressing material information, or
- (vi) resorting to the following means in connection with his/her candidature for the examination, namely
  - (a) obtaining copy of question paper through improper means,
  - (b) finding out the particulars of the persons connected with secret work relating to the examination.
  - (c) influencing the examiners, or
- (vii) using unfair means during the examination, or
- (viii) writing obscene matter or drawing obscene sketches in the scripts, or
- (ix) misbehaving in the examination hall including tearing of the scripts, provoking fellow examinees to boycott examination, creating a disorderly scene and the like, or
- (x) harassing or doing bodily harm to the staff employed by the Commission for the conduct of their examinations, or
- (xi) being in possession of or using mobile phone, pager or any electronic equipment or device or any other equipment capable of being used as a communication device during the examination; or
- (xii) violating any of the instructions issued to candidates along with their admission certificates permitting them to take the examination, or
- (xiii) attempting to commit or as the case may be abetting the commission of all or any of the acts specified in the foregoing clauses; may in addition to

rendering himself/ herself liable to criminal prosecution, be liable.

- (a) to be disqualified by the Commission from the examination for which he/she is a candidate and/or
- (b) to be debarred either permanently or for a specified period
  - (i) by the Commission from any examination or selection held by them;
  - (ii) by the Central Government from any employment under them; and
- (c) service under Government to if he/she is already in disciplinary action under the appropriate rules. Provided that no penalty under this rules shall be imposed except after
  - (i) giving the candidate an opportunity of making such representation, in writing as he/she may wish to make in that behalf; and
  - (ii) taking the representation, if any, submitted by the candidate with in the period allowed to him/her into consideration.

#### 6. LAST DATE FOR SUBMISSION OF APPLICATIONS :

The Online Applications can be filled upto **04th April, 2013 till 11.59 PM** after which the link will be disabled.

#### 7. CORRESPONDENCE WITH THE COMMISSION :

The Commission will not enter into any correspondence with the candidates about their candidature except in the following cases:

- (i) The eligible candidates shall be issued an e-Admission Certificate about three weeks before the commencement of the examination. The e-Admission Certificate will be made available in the UPSC website [www.upsc.gov.in] for downloading by candidates. No Admission Certificate will be sent by post. If a candidate does not receive his/her e- Admission Certificate or any other communication regarding his/her candidature for the examination three weeks before the commencement of the examination, he/she should at once contact the Commission. Information in this regard can also be obtained from the Facilitation Counter located in the Commission's office either in person or over phone Nos. 011- 23381125/011-23385271/011-23098543.

**In case no communication is received in the Commission's office from the candidate regarding non-receipt of his/ her e-admission certificate at least three weeks before the examination, he/she himself/herself will be solely responsible for non-receipt of his/her e-Admission Certificate.**

No candidate will ordinarily be allowed to take the examination unless he/she holds an e-certificate of admission for the examination. On receipt of e-Admission Certificate, candidates should check it carefully and bring discrepancies/errors, if any, to the notice of UPSC immediately. The candidates should note that their admission to the examination will be purely provisional based on the information given by them in the Application Form. This will be subject to verification of all the eligibility conditions by the UPSC.

**The mere fact that a certificate of**

**admission to the Examination has been issued to a candidate, will not imply that his/her candidature has been finally cleared by the Commission or that entries made by the candidate in his/her application for the Preliminary examination have been accepted by the Commission as true and correct. Candidates may note that the Commission takes up the verification of eligibility conditions of a candidate, with reference to original documents, only after the candidate has qualified for Indian Forest Service (Main) Examination. Unless candidature is formally confirmed by the Commission, it continues to be provisional.**

The decision of the Commission as to the eligibility or otherwise of a candidate for admission to the Examination shall be final. Candidates should note that the name in the e-Admission Certificate in some cases may be abbreviated due to technical reasons.

(ii) In the event of a candidate downloading more than one e-Admission Certificate from the website of the Commission, he/she should use only one of these e-admission certificates for appearing in the examination and report about the other(s) to the Commission Office.

(iii) Candidates are informed that as the Preliminary Examination is only a screening test, no marks sheets will be supplied to successful or unsuccessful candidates and no correspondence will be entertained by the Commission, in this regard.

(iv) If a candidate receives an e-Admission Certificate in respect of some other candidate, the same should immediately be returned to the Commission with a request to issue the correct e-Admission Certificate. Candidates may note that they will not be allowed to take the examination on the strength of an e- Admission Certificate issued in respect of another candidate.

(v) Candidates must ensure that their E-Mail IDs given in their online Applications are valid and active as the Commission may use electronic mode of communication while contacting them at different stages of the examination process.

**IMPORTANT : ALL COMMUNICATIONS TO THE COMMISSION SHOULD INVARIABLY CONTAIN THE FOLLOWING PARTICULARS.**

1. NAME AND YEAR OF THE EXAMINATION
2. REGISTRATION I.D. (RID)
3. ROLL NUMBER (IF RECEIVED)
4. NAME OF CANDIDATE (IN FULL AND IN BLOCK LETTERS)
5. COMPLETE POSTAL ADDRESS AS GIVEN IN THE APPLICATION.
6. VALID AND ACTIVE E-MAIL I.D.

**N.B.I: COMMUNICATION NOT CONTAINING THE ABOVE PARTICULARS MAY NOT BE ATTENDED TO.**

**N.B.II : IF A LETTER/COMMUNICATION IS RECEIVED FROM A CANDIDATE AFTER AN EXAMINATION HAS BEEN HELD AND IT DOES NOT GIVE HIS/HER FULL NAME AND ROLL NUMBER, IT WILL BE IGNORED AND NO ACTION WILL BE TAKEN THEREON.**

**N.B.III : CANDIDATES ARE STRONGLY**

**ADVISED TO KEEP A PRINTOUT OR SOFT COPY OF THEIR ONLINE APPLICATION FOR FUTURE REFERENCES.**

**8. The eligibility for availing reservation against the vacancies reserved for the physically disabled persons shall be the same as prescribed in "The Persons with Disability (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995."**

Provided further that the physically disabled candidates shall also be required to meet special eligibility criteria in terms of physical requirements/functional classification (abilities/ disabilities) consistent with requirements of the identified Service/Post as may be prescribed by its Cadre Controlling Authority. A list of Services identified suitable for Physically Disabled Category along with the physical requirements and functional classifications. The physical requirement and functional classification can for example be one or more of the following :

Code	Physical Requirements
MF	1. Work performed by Manipulation by Fingers
PP	2. Work Performed by Pulling & Pushing
L	3. Work Performed by Lifting
KC	4. Work Performed by Kneeling and Crouching
BN	5. Work Performed by Bending
S	6. Work Performed by Sitting (on bench or chair)
ST	7. Work Performed by Standing
W	8. Work Performed by Walking
SE	9. Work Performed by Seeing
H	10. Work Performed by Hearing/ Speaking
RW	11. Work Performed by Reading and Writing
C	12. Communication
Code	FUNCTIONAL CLASSIFICATION
BL	1. Both legs affected but not arms
BA	2. Both arms affected <ol style="list-style-type: none"> <li>a. impaired Reach</li> <li>b. weakness of Grip.</li> <li>c. ataxic</li> </ol>
BLA	3. Both legs and both arms affected.
OL	4. One leg affected (R or L) <ol style="list-style-type: none"> <li>a. impaired reach</li> <li>b. weakness of grip</li> <li>c. ataxic</li> </ol>
OA	5. One arm affected (R or L) <ol style="list-style-type: none"> <li>a. impaired reach</li> <li>b. weakness of grip</li> <li>c. ataxic</li> </ol>
OAL	6. One arm and one leg affected
MW	7. Muscular weakness.
B	8. Blind
LV	9. Low vision
H	10. Hearing

**Note :** The above list is subject to revision.

**9. NO REQUEST FOR WITH DRAWAL OF CANDIDATURE RECEIVED FROM A CANDIDATE AFTER HE/SHE HAS SUBMITTED HIS/HER APPLICATION WILL BE ENTERTAINED UNDER ANY CIRCUMSTANCES.**

**10.** Details about the scheme of examination, standard and syllabi of the subjects etc. may be seen in Appendix-I of this Notice.

**{Malay Mukhopadhyay}  
DEPUTY SECRETARY  
UNION PUBLIC SERVICE COMMISSION**

#### APPENDIX I

##### SECTION I

##### PLAN OF EXAMINATION

The competitive examination comprises two successive stages :

- (i) Civil Services (Preliminary) Examination (Objective Type) for the screening & selection of candidates for Indian Forest Service (Main) Examination; and
- (ii) Indian Forest Service (Main) Examination (Written and Interview) for the selection of candidates against the vacancies identified and reported for the Indian Forest Service Examination.

2. The preliminary Examination will con-

sist of two papers of Objective type (multiple choice questions) and carry a maximum of 400 marks in the subjects set out in sub-section (A) of Section II. This examination is meant to serve as a screening test only; the marks obtained in the Preliminary Examination by the candidates who are declared qualified for admission to the Main Examination will not be counted for determining their final order of merit. The number of candidates to be admitted to the Main Examination will be about twelve to thirteen times the total approximate number of vacancies to be filled in

the year through this examination. Only those candidates who are declared by the Commission to have qualified in the Preliminary Examination in the year will be eligible for admission to the Main Examination of that year provided they are otherwise eligible for admission, to the Main Examination.

**Note I :** Since there may be common candidates for Civil Services Examination and the Indian Forest Service Examination, after the common Screening Test done through Civil Services (Preliminary) Examination, separate lists will be prepared for the candi-

dates eligible to appear in the Civil Service (Main) Examination and Indian Forest Service (Main) Examination, based on the number of vacancies to be filled through the Civil Services Examination and Indian Forest Service Examination.

**Note II :** There will be negative marking for incorrect answers (as detailed below) for all questions except some of the questions where the negative marking will be inbuilt in the form of different marks being awarded to the most appropriate and not so appropriate answer for such questions.

(i) There are four alternatives for the

answers to every question. For each question for which a wrong answer has been given by the candidate, one-third of the marks assigned to that question will be deducted as penalty.

(ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happen to be correct and there will be same penalty as above for that question.

(iii) If a question is left blank i.e. no answer is given by the candidate, there will be no penalty for that question."

**Note III :** Candidates must write the papers in their own hand. In no circumstances will they be allowed the help of a scribe to write the answers for them. However, blind candidates will be allowed to write the examination with the help of a scribe.

**3.** The Main Examination will consist of written examination and an interview test. The written examination will consist of 6 papers of conventional essay type in the subjects set out in sub-section (B) of Section II. Also see Note (ii) under para I of Section II(B).

**4.** Candidates who obtain such minimum qualifying marks in the written part of the Main Examination as may be fixed by the Commission at their discretion, shall be summoned by them for an interview for a Personality Test vide sub-section 'C' of Section II. The number of candidates to be summoned for interview will be about twice the number of vacancies to be filled. The interview will carry 300 marks (with no minimum qualifying marks).

Marks thus obtained by the candidates in the Main Examination (written part as well as interview) would determine their final ranking.

**SECTION II**

**Scheme and subjects for the Preliminary and Main Examination.**

**A. PRELIMINARY EXAMINATION :**

The Examination shall comprise of two compulsory Papers of 200 marks each.

**Note :**

- (i) Both the question papers will be of the objective type (multiple choice questions).
- (ii) The question papers will be set both in Hindi and English. However, questions relating to English Language Comprehension skills of Class X level will be tested through passages from English language only without providing Hindi translation thereof in the question paper.
- (iii) Details of the syllabi are indicated in Part A of Section III.
- (iv) Each paper will be of two hours duration. Blind candidates will; however, be allowed an extra time of twenty minutes for each paper.

**B. MAIN EXAMINATION :**

**The written examination consisting of the following papers:-**

<b>Paper I</b>	General English	300 Marks
<b>Paper II</b>	General Knowledge	300 Marks
<b>Paper III</b>	Any two subjects to be selected from the list of the optional subjects set out in para 2 below.	200 marks for each paper
<b>Paper IV</b>	from the list of the optional subjects set out in para 2 below.	each paper
<b>Paper V</b>	Each subject will have two papers.	

**(C) Interview for Personality Test (See (C) of Section II of this Appendix) of such candidates as may be called by the Commission-**

**Maximum Marks : 300 Marks**

**2. List of optional subjects :**

- (i) Agriculture
- (ii) Agricultural Engineering
- (iii) Animal Husbandry & Veterinary Science
- (iv) Botany
- (v) Chemistry
- (vi) Chemical Engineering
- (vii) Civil Engineering
- (viii) Forestry
- (ix) Geology

- (x) Mathematics
  - (xi) Mechanical Engineering
  - (xii) Physics
  - (xiii) Statistics
  - (xiv) Zoology
- Provided that the candidates will not be allowed to offer the following combination of subjects :
- (a) Agriculture and Agricultural Engg.
  - (b) Agriculture and Animal Husbandry & Veterinary Science.
  - (c) Agriculture and Forestry.
  - (d) Chemistry and Chemical Engg.
  - (e) Mathematics and Statistics.
  - (f) Of the Engineering subjects viz. Agricultural Engineering, Chemical Engineering, Civil Engineering and Mechanical Engineering- not more than one subject;

**NOTE -** The standard and syllabi of the subjects mentioned above are given in Section III. to this appendix

**General:**

1. All the question papers for the examination will be of conventional (essay) type.
2. **ALL QUESTION PAPERS MUST BE ANSWERED IN ENGLISH. QUESTION PAPERS WILL BE SET IN ENGLISH ONLY**
3. The duration of each of the papers referred to above will be three hours.
4. Candidates must write the papers in their own hand. In no circumstances will they be allowed the help of a scribe to write the answers for them. However, blind candidates will be allowed to write the examination with the help of a scribe. An extra time of 30 minutes for each paper will also be allowed to a blind candidate.

**Note (1) :** The eligibility conditions of a scribe, his/her conduct inside the examination hall and the manner in which and extent to which he/she can help the blind candidate in writing the Indian Forest Service Examination shall be governed by the instructions issued by the UPSC in this regard. Violation of all or any of the said instructions shall entail the cancellation of the candidature of the blind candidate in addition to any other action that the UPSC may take against the scribe.

**Note (2) :** For purpose of these rules the candidate shall be deemed to be a blind candidate if the percentage of visual impairment is forty per cent (40%) or more. However, the extent of visual impairment should have to be corroborated by a certificate in the prescribed proforma from a Medical Board constituted by the Central/State Government along with their Detailed Application Form.

**Note (3) :** The concession admissible to blind candidates shall not be admissible to those suffering from Myopia.

5. The Commission have discretion to fix qualifying marks in any or all the papers of the examination.
6. If a candidate's handwriting is not easily legible, deduction will be made on this account from the total marks otherwise accruing to him/her.
7. Marks will not be allotted for mere superficial knowledge.
8. Credit will be given for orderly, effective and exact expression combined with due economy of words in all subjects of the examination.
9. In the question papers, wherever required, SI units will be used.
10. Candidates should use only international form of Indian numerals (e.g. 1, 2, 3, 4, 5, 6, etc.) while answering question papers.
11. Candidates will be allowed the use of Scientific (Non-programmable type) calculators at the convention-

al type examinations of UPSC. Programmable type calculators will however not be allowed and the use of such calculators shall tantamount to resorting to unfair means by the candidates. Loaning and interchanging of calculators in the Examination Hall is not permitted.

**(C) PERSONALITY TEST**

The candidate will be interviewed by a Board of competent and unbiased observers who will have before them a record of his/her career. The object of the Interview is to assess the personal suitability of the candidate for the Service. The candidate will be expected to have taken an intelligent interest not only in his/her subjects of academic study but also in events which are happening around him/her both within and outside his/her own state or country, as well as in modern currents of thoughts and in new discoveries which should rouse the curiosity of well educated youth.

2. The technique of the interview is not that of a strict cross examination, but of a natural, though directed and purposive conversation, intended to reveal mental qualities of the candidate. The Board will pay special attention to assessing the intellectual curiosity, critical powers of observation and assimilation, balance of judgment and alertness of mind, initiative, tact, capacity for leadership; the ability for social cohesion, mental and physical energy and powers of practical application; integrity of character; and other qualities such as topographical sense, love for out-door life and the desire to explore unknown and out of way places.

**SECTION III**

**SYLLABI FOR THE EXAMINATION**

**NOTE :** Candidates are advised to go through the Syllabus published in this Section for the Preliminary Examination and the Main Examination.

**Part A-Preliminary Examination**

**Paper I - (200 marks) Duration : Two hours**

- Current events of national and international importance
- History of India and Indian National Movement
- Indian and World Geography-Physical, Social, Economic Geography of India and the World.
- Indian Polity and Governance-Constitution, Political System, Panchayati Raj, Public Policy, Rights Issues, etc.
- Economic and Social Development-Sustainable Development, Poverty, Inclusion, Demographics, Social Sector Initiatives, etc.
- General issues on Environmental ecology, Bio-diversity and Climate Change - that do not require subject specialization
- General Science.

**Paper II-(200 marks) Duration : Two hours**

- Comprehension
- Interpersonal skills including communication skills;
- Logical reasoning and analytical ability
- Decision making and problem solving
- General mental ability
- Basic numeracy (numbers and their relations, orders of magnitude, etc.) (Class X level), Data interpretation (charts, graphs, tables, data sufficiency etc. - Class X level)
- English Language Comprehension skills (Class X level).

**Note 1 :** Questions relating to English Language Comprehension skills of Class X level (last item in the Syllabus of Paper-II) will be tested through passages from English language only without providing Hindi

translation thereof in the question paper.

**Note 2 :** The questions will be of multiple choice, objective type.

**Part B-Main Examination**

The standard of papers in General English and General Knowledge will be such as may be expected of a Science or Engineering graduate of an Indian University.

**THE SCOPE OF THE SYLLABUS FOR OPTIONAL SUBJECT PAPERS FOR THE EXAMINATION IS BROADLY OF THE HONOURS DEGREE LEVEL I.E. A LEVEL HIGHER THAN THE BACHELORS DEGREE AND LOWER THAN THE MASTERS DEGREE. IN THE CASE OF ENGINEERING SUBJECTS, THE LEVEL CORRESPONDS TO THE BACHELORS DEGREE.**

There will be no practical examination in any of the subjects.

**GENERAL ENGLISH**

**Candidates will be required to write an essay in English. Other questions will be designed to test their understanding of English and workmanlike use of words. Passages will usually be set for summary or precis.**

**GENERAL KNOWLEDGE**

General Knowledge including knowledge of current events and of such matters of every day observation and experience in their scientific aspects as may be expected of an educated person who has not made a special study of any scientific subject. The paper will also include questions on Indian Polity including the political system and the Constitution of India, History of India and Geography of a nature which the candidate should be able to answer without special study.

**OPTIONAL SUBJECTS**

Total number of questions in the question papers of optional subjects will be eight. All questions will carry equal marks. Each paper will be divided into two parts, viz. Part A and Part B, each part containing four questions. Out of eight questions, five questions are to be attempted. One question in each part will be compulsory. Candidates will be required to answer three more questions out of the remaining six questions, taking at least one question from each Part. In this way, at least two questions will be attempted from each Part i.e. one compulsory question plus one more.

**AGRICULTURE PAPER-I**

Ecology and its relevance to man, natural resources, their sustainable management and conservation. Physical and social environment as factors of crop distribution and production. Climatic elements as factors of crop growth, impact of changing environment on cropping pattern as indicators of environments. Environmental pollution and associated hazards to crops, animals, and humans. Cropping pattern in different agro-climatic zones of the country. Impact of high-yielding and short-duration varieties on shifts in cropping pattern. Concepts of multiple cropping, multistorey, relay and intercropping, and their importance in relation to food production. Package of practices for production of important cereals, pulses, oil seeds, fibres, sugar, commercial and fodder crops grown during Kharif and Rabi seasons in different regions of the country. Important features, scope and propagation of various types of forestry plantations such as extension, social forestry, agro-forestry, and natural forests. Weeds, their characteristics, dissemination and association with various crops; their multiplication; cultural, biological and chemical control of weeds. Soil-physical, chemical and biological properties. Processes and factors of soil formation. Modern classification of Indian soils, Mineral and organic constituents of soils and their role in maintaining soil produc-

tivity. Essential plant nutrients and other beneficial elements in soils and plants. Principles of soil fertility and its evaluation for judicious fertilizer use, integrated nutrient management. Losses of nitrogen in soil, nitrogen-use efficiency in submerged rice soils, nitrogen fixation in soils. Fixation of phosphorus and potassium in soils and the scope for their efficient use. Problem soils and their reclamation methods.

Soil conservation planning on watershed basis. Erosion and run-off management in hilly, foot hills, and valley lands; processes and factors affecting them. Dry land agriculture and its problems. Technology of stabilising agriculture production in rain fed agriculture area.

Water-use efficiency in relation to crop production, criteria for scheduling irrigations, ways and means of reducing run-off losses of irrigation water. Drip and sprinkler irrigation. Drainage of water-logged soils, quality of irrigation water, effect of industrial effluents on soil and water pollution.

Farm management, scope, important and characteristics, farm planning. Optimum resources use and budgeting. Economics of different types of farming systems. Marketing and pricing of agricultural inputs and outputs, price fluctuations and their cost; role of co-operatives in agricultural economy; types and systems of farming and factors affecting them.

Agricultural extension, its importance and role, methods of evaluation of extension programmes, socio-economic survey and status of big, small, and marginal farmers and landless agricultural labourers; farm mechanization and its role in agricultural production and rural employment. Training programmes for extension workers; lab-to-land programmes.

#### PAPER-II

Cell Theory, cell structure, cell organelles and their function, cell division, nucleic acids-structure and function, gene structure and function. Laws of heredity, their significance in plant breeding. Chromosome structure, chromosomal aberrations, linkage and cross-over, and their significance in recombination breeding. Polyploidy, euploid and an euploids. Mutation-micro and macro-and their role in crop improvement. Variation, components of variation. Heritability, sterility and incompatibility, classification and their application in crop improvement. Cytoplasmic inheritance, sex-linked, sex-influenced and sex-limited characters. History of plant breeding. Modes of reproduction, selfing and crossing techniques. Origin and evolution of crop plants, centre of origin, law of homologous series, crop genetic resources-conservation and utilization. Application of principles of plant breeding to the improvement of major field crops. Pure-line selection, pedigree, mass and recurrent selections, combining ability, its significance in plant breeding. Hybrid vigour and its exploitation, back-cross method of breeding, breeding for disease and pest resistance, role of inter-specific and intergeneric hybridization. Role of biotechnology in plant breeding. Improved varieties, hybrids, composites of various crop plants.

Seed technology, its importance. Different kinds of seeds and their seed production and processing techniques. Role of public and private sectors in seed production, processing and marketing in India. Physiology and its significance in agriculture. Imbibition, surface tension, diffusion and osmosis. Absorption and translocation of water, transpiration and water economy. Enzymes and plant pigments; photosynthesis-modern concepts and factors affecting the process, aerobic and nonaerobic respiration; C, C and CAM mechanisms. Carbohydrate, protein and fat metabolism.

Growth and development; photoperiodism and vernalization. Auxins, hormones, and other plant regulators and their mechanism of action and importance

in agriculture. Physiology of seed development and germination; dormancy. Climatic requirements and cultivation of major fruits, plants, vegetable crops and flower plants; the package of practices and their scientific basis. Handling and marketing problems of fruit and vegetables. Principal methods of preservation of important fruits and vegetable products, processing techniques and equipment. Role of fruits and vegetables in human nutrition. Raising of ornamental plants, and design and layout of lawns and gardens.

Diseases and pests of field vegetables, orchard and plantation crops of India. Causes and classification of plant pests and diseases. Principles of control of plant pests and diseases Biological control of pests and diseases. Integrated pest and disease management. Epidemiology and forecasting. Pesticides, their formulations and modes of action. Compatibility with rhizobial inoculants. Microbial toxins.

Storage pests and diseases of cereals and pulses, and their control.

Food production and consumption trends in India. National and international food policies. Production, procurement, distribution and processing constraints. Relation of food production to national dietary pattern, major deficiencies of calorie and protein.

#### AGRICULTURAL ENGINEERING PAPER - I SECTION A

**1. Soil and Water Conservation :** Scope of soil and water conservation. Mechanics and types of erosion, their causes. Mechanics and types of erosion, their causes. Rainfall, runoff and sedimentation relationships and their measurement. Soil erosion control measures - biological and engineering including stream bank protection-vegetative barriers, contour bunds, contour trenches, contour stone walls, contour ditches, terraces, outlets and grassed waterways. Gully control structures - temporary and permanent - design of permanent soil conservation structures such as chute, drop and drop inlet spillways. Design of farm ponds and percolation ponds. Principles of flood control-flood routing. Watershed Management - investigation, planning and implementation - selection of priority areas and water shed work plan, water harvesting and moisture conservation. Land development - leveling, estimation of earth volumes and costing. Wind Erosion process - design for shelter belts and wind breaks and their management. Forest (Conservation) Act.

**2. Aerial Photography and Remote Sensing :** Basic characteristics of photographic images, interpretation keys, equipment for interpretation, imagery interpretation for land use, geology, soil and forestry.

Remote sensing - merits and demerits of conventional and remote sensing approaches. Types of satellite images, fundamentals of satellite image interpretation, techniques of visual and digital interpretations for soil, water and land use management. Use of GIS in planning and development of watersheds, forests including forest cover, water resources etc.

#### Section B

**3. Irrigation and Drainage :** Sources of water for irrigation. Planning and design of minor irrigation projects. Techniques of measuring soil moisture - laboratory and *in situ*. Soil-water plant relationships. Water requirement of crops. Planning conjunctive use of surface and ground water. Measurement of irrigation water, measuring devices - orifices, weirs and flumes. Methods of irrigation - surface, sprinkler and drip, fertigation. Irrigation efficiencies and their estimation. Design and construction of canals, field channels, underground pipelines, head-gates, diversion boxes and structures for road crossing.

Occurrence of ground water, hydraulics of wells, types of wells (tube wells and open wells) and their construction. Well development and testing. Pumps-types, selection and installation. Rehabilitation of sick and failed wells.

Drainage causes of water logging and salt problem. Methods of drainage- drainage of irrigated and unirrigated lands, design of surface, sub-surface and vertical drainage systems. Improvement and utilization of poor quality water. Reclamation of saline and alkali soils. Economics of irrigation and drainage systems. Use of waste water for irrigation - standards of waste water for sustained irrigation, feasibility and economics.

**4. Agricultural Structures :** Site selection, design and construction of farmstead - farm house, cattle shed, dairy barn, poultry shed, hog housing, machinery and implement shed, storage structures for food grains, feed and forage. Design and construction of fences and farm roads. Structures for plant environment - green houses, poly houses and shade houses. Common building materials used in construction - timber, brick, stone, tiles, concrete etc and their properties. Water supply, drainage and sanitation system.

#### PAPER-II

##### Section A

**1. Farm Power and Machinery :** Agricultural mechanization and its scope. Sources of farm power - animate and electro-mechanical. Thermodynamics, construction and working of internal combustion engines. Fuel, ignition, lubrication, cooling and governing system of IC engines. Different types of tractors and power tillers. Power transmission, ground drive, power take off (p.t.o.) and control systems. Operation and maintenance of farm machinery for primary and secondary tillage. Traction theory. Sowing transplanting and interculture implements and tools. Plant protection equipment - spraying and dusting. Harvesting, threshing and combining equipment. Machinery for earth moving and land development - methods and cost estimation. Ergonomics of man-machine system. Machinery for horticulture and agro-forestry, feeds and forages. Haulage of agricultural and forest produce.

**2. Agro-energy :** Energy requirements of agricultural operations and agro-processing. Selection, installation, safety and maintenance of electric motors for agricultural applications. Solar (thermal and photovoltaic), wind and bio-gas energy and their utilization in agriculture. Gasification of biomass for running IC engines and for electric power generation. Energy efficient cooking stoves and alternate cooking fuels. Distribution of electricity for agricultural and agro-industrial applications.

##### Section B

**3. Agricultural Process Engineering :** Post harvest technology of crops and its scope. Engineering properties of agricultural produces and by-products. Unit operations - clearing and grading, size reduction, densification, concentration, drying/dehydration, evaporation, filtration, freezing and packaging of agricultural produces and by-products. Material handling equipment - belt and screw conveyors, bucket elevators, their capacity and power requirement.

Processing of milk and dairy products - homogenization, cream separation, pasteurization, sterilization, spray and roller drying, butter making, ice cream, cheese and shrikhand manufacture. Waste and by-product utilization - rice husk, rice bran, sugarcane bagasse, plant residues and coir pith.

**4. Instrumentation and computer applications in Agricultural Engineering :** Electronic devices and their characteristics - rectifiers, amplifiers, oscillators, multivibrators. Digital circuits - sequential and combinational system. Application of microprocessors in data acquisition and control of agricultural engineering processes- measurement systems for

level, flow, strain, force, torque, power, pressure, vacuum and temperature. Computers - introduction, input/output devices, central processing unit, memory devices, operating systems, processors, keyboards and printers. Algorithms, flow-chart specification, programme translation and problem analysis in Agricultural Engineering. Multimedia and Audio-Visual aids.

#### ANIMAL HUSBANDRY AND VETERINARY SCIENCE PAPER-I

**1. Animal Nutrition-Energy sources,** energy, metabolism and requirements for maintenance and production of milk, meat, eggs and wool. Evaluation of feeds as sources of energy.

**1.1. Trends in protein nutrition:** sources of protein metabolism and synthesis, protein quantity and quality in relation to requirements. Energy protein ratios in ration.

**1.2. Minerals in animal diet :** Sources, functions, requirements and their relationship of the basic minerals nutrients including trace elements.

**1.3. Vitamins, Hormones and Growth Stimulating, substances :** Sources, functions, requirements and inter-relationship with minerals.

**1.4. Advances in Ruminant Nutrition-Dairy Cattle:** Nutrients and their metabolism with reference to milk production and its composition. Nutrient requirements for calves, heifers, dry and milking cows and buffaloes. Limitations of various feeding systems.

**1.5 Advances in Non-Ruminant Nutrition-Poultry-Nutrients** and their metabolism with reference to poultry, meat and egg production, Nutrients requirements and feed formulation and broilers at different ages.

**1.6 Advances in Non-Ruminant Nutrition-Swine-Nutrients** and their metabolism with special reference to growth and quality of meat production, Nutrient requirement and feed formulation for baby-growing and finishing pigs.

**1.7. Advances in Applied Animal Nutrition-** A critical review and evaluation of feeding experiments, digestibility and balance studies. Feeding standards and measures of food energy. Nutrition requirements for growth, maintenance and production. Balanced rations.

#### 2. Animal Physiology :

**2.1 Growth and Animal Production :-** Prenatal and postnatal growth, maturation, growth curves, measures of growth, factors affecting growth, conformation, body composition, meat quality.

**2.2 Milk Production and Reproduction and Digestion :** Current status of hormonal control of mammary development, milk secretion and milk ejection. Male and Female reproduction organ, their components and function. Digestive organs and their functions.

**2.3 Environmental Physiology :** Physiological relations and their regulation; mechanisms of adaptation, environmental factors and regulatory mechanism involved in animal behaviour, methods of controlling climatic stress.

**2.4 Semen quality :** Preservation and Artificial Insemination-Components of semen, composition of spermatozoe, chemical and physical properties of ejaculated semen, factors affecting semen in vivo and in vitro. Factors affecting semen production and quality preservation, composition of diluents, sperm concentration, transport of diluted semen. Deep Freezing techniques in cows, sheep and goats, swine and poultry.

Detection of oestrus and time of insemination for better conception.

#### 3. Livestock Production and Management :

**3.1 Commercial Dairy Farming-** Comparison of dairy farming in India with advanced countries. Dairying under fixed farming and as a specialised farming, economic dairy farming, Starting of a dairy farm. Capital and land requirement, organisation of the dairy farm.

Procurement of goods; opportunities in dairy farming, factors determining the efficiency of dairy animal, Herd recording, budgeting, cost of milk production; pricing policy; Personnel Management. Developing Practical and Economic ration for dairy cattle; supply of greens throughout the year, field and fodder requirements of Dairy Farm, Feeding regimes for day and young stock and bulls, heifers and breeding animals, new trends in feeding young and adult stock; Feeding records.

**3.2. Commercial meat, egg and wool production:** Development of practical and economic rations for sheep, goats, pigs, rabbits and poultry. Supply of greens, fodder, feeding regimens for young and mature stock. New trends in enhancing production and management. Capital and land requirements and socio-economic concept.

**3.3. Feeding and management of animals under drought, flood and other natural calamities.**

**4. Genetics and Animal Breeding :** Mitosis and Meiosis; Mendelian inheritance; deviations to Mendelian genetics; Expression of genes; Linkage and crossing over; Sex determination, sex influenced and sex limited characters; Blood groups and polymorphism; Chromosome aberrations; Gene and its structure; DNA as a genetic material; Genetic code and protein synthesis; Recombinant DNA technology, Mutations, types of mutations, methods for detecting mutations and mutation rate.

**4.1 Population Genetics Applied to Animal Breeding:** Quantitative Vs. qualitative traits; Hardy Weinberg Law; Population Vs. individual; Gene and genotypic frequency; Forces changing gene frequency; Random drift and small populations; Theory of path coefficient; Inbreeding, methods of estimating inbreeding coefficient, systems of inbreeding; Effective population size; Breeding value, estimation of breeding value, dominance and epistatic deviation; partitioning of variation; Genotype X environment correlation and genotype X environment interaction; Role of multiple measurements; Resemblance between relatives.

**4.2 Breeding Systems :** Heritability, repeatability and genetic and phenotypic correlations, their methods of estimation and precision of estimates; Aids to selection and their relative merits; Individual, pedigree, family and within family selection; Progeny testing; Methods of selection; Construction of selection indices and their uses; Comparative evaluation of genetic gains through various selection methods; Indirect selection and Correlated response; Inbreeding, upgrading, cross-breeding and synthesis of breeds; Crossing of inbred lines for commercial production; Selection for general and specific combining ability; Breeding for threshold character.

#### Paper II

### 1. Health and Hygiene

**1.1. Histology and Histological Techniques :** Stains-Chemical classification of stains used in biological work-principles of staining tissues-mordants-progressive & regressive stains-differential staining of cytoplasmic and connective tissue elements-Methods of preparation and processing of tissues-celloidin embedding-Freezing microtomy-Microscopy-Bright field microscope and electron microscope. Cytology-structure of cell, organelles & inclusions; cell division-cell types-Tissues and their classification-embryonic and adult tissues-Comparative histology of organs:- vascular, Nervous, digestive, respiratory, musculo-skeletal and urogenital systems-Endocrine glands-Integuments-sense organs.

**1.2. Embryology :** Embryology of vertebrates with special reference to aves and domestic mammals-gametogenesis-fertilization-germ layers-foetal membranes &

placentation-types of placenta in domestic mammals-Teratology-twin & twinning-organogenesis-germ layer derivatives-endodermal, mesodermal and ectodermal derivatives.

**1.3 Bovine Anatomy-Regional Anatomy:** Paranasal sinuses of OX-surface anatomy of salivary glands. Regional anatomy of infraorbital, maxillary, mandibuloalveolar, mental & coronal nerve block-Regional anatomy of paravertebral nerves, pudental nerve, median, ulnar & radial nerves-tibial, fibular and digital nerves-Cranial nerves-structures involved in epidural anaesthesia-superficial lymph nodes-surface anatomy of visceral organs of thoracic, abdominal and pelvic cavities-comparative features of locomotor apparatus & their application in the biomechanics of mammalian body.

**1.4 Anatomy of Fowl :** Musculo-skeletal system-functional anatomy in relation to respiration and flying, digestion and egg production.

**1.5 Physiology of blood and its circulation, respiration; excretion, Endocrine glands in health and disease.**

**1.5.1 Blood constituents :** Properties and functions-blood cell formation-Haemoglobin synthesis and chemistry-plasma proteins production, classification and properties; coagulation of blood; Haemorrhagic disorders-anticoagulants-blood groups-Blood volume-Plasma expanders-Buffer systems in blood. Biochemical tests and their significance in disease diagnosis.

**1.5.2. Circulation:** Physiology of heart, cardiac cycle-heart sounds, heart beat, electrocardiograms, Work and efficiency of heart-effect of ions on heart function-metabolism of cardiac muscle, nervous and chemical regulation of heart, effect of temperature and stress on heart, blood pressure and hypertension, Osmotic regulation, arterial pulse, vasomotor regulation of circulation, shock. Coronary & pulmonary circulation, Blood-Brain barrier-Cerebrospinal fluid-circulation in birds.

**1.5.3 Respiration :** Mechanism of respiration, Transport and exchange of gases-neural control of respiration-chemo receptors-hypoxia-respiration in birds.

**1.5.4 Excretion:** Structure and function of kidney-formation of urine methods of studying renal function-renal regulation of acid-base balance; physiological constituents of urine-renal failure-passive venous congestion-Urinary recreation in chicken-Sweat glands and their function. Biochemical tests for urinary dysfunction.

**1.5.5 Endocrine glands :** Functional disorders, their symptoms and diagnosis. Synthesis of hormones, mechanism and control of secretion-hormonal receptors-classification and function.

**1.6. General knowledge of pharmacology and therapeutics of drugs :** Cellular level of pharmacodynamics and pharmacokinetics-Drugs acting on fluids and electrolyte balance-drugs acting on Autonomic nervous system-Modern concepts of anaesthesia and dissociative anaesthetics-Autocoids-Antimicrobials and principles of chemotherapy in microbial injections-use of hormones in therapeutics-chemotherapy of parasitic infections-Drug and economic persons in the Edible tissues of animals-chemotherapy of Neoplastic diseases.

**1.7. Veterinary Hygiene with reference to water, air and habitation :** Assessment of pollution of water, air and soil-Importance of climate in animal health-effect of environment on animal function and performance-relationship between industrialization and animal agriculture-animal housing requirements for specific categories of domestic animals viz. pregnant cows & sows, milking cows, broiler birds-stress, strain & productivity in relation to animal habitation.

### 2. Animal Diseases :

**2.1 Pathogenesis, symptoms, post-mortem lesions, diagnosis, and control of infection diseases of cattle, pigs and poultry, horses, sheep and goats.**

**2.2 Etiology, symptoms, diagnosis, treatment of production diseases of cattle, pig and poultry.**

**2.3 Deficiency diseases of domestic animals and birds.**

**2.4 Diagnosis and treatment of nonspecific condition like impaction, Bloat, Diarrhoea, Indigestion, dehydration, stroke, poisoning.**

**2.5 Diagnosis and treatment of neurological disorders.**

**2.6 Principles and methods of immunisation of animals against specific diseases-hard immunity-disease free zones-'zero' disease concept-chemoprophylaxis.**

**2.7 Anesthesia-local, regional and general-preanaesthetic medication, Symptoms and surgical interference in fractures and dislocation, Hernia, choking, abomassal displacement-Caesarian operations, Rumenotomy-Castrations.**

**2.8 Disease investigation techniques-Materials for laboratory investigation-Establishment Animal Health Centres-Disease free zone.**

### 3. Veterinary Public Health

**3.1 Zoonoses :** Classification, definition; role of animals and birds in prevalence and transmission of zoonotic diseases-occupational zoonotic diseases.

**3.2. Epidemiology :** Principles, definition of epidemiological terms, application of epidemiological measures in the study of diseases and disease control, Epidemiological features of air, water and food borne infections.

**3.3 Veterinary Jurisprudence :** Rules and Regulations for improvement of animal quality and prevention of animal diseases-state and control Rules for prevention of animal and animal product borne diseases-S.P. C.A.-veterolegal cases-certificates-Materials and Methods of collection of samples for veterolegal investigation.

**4. Milk and Milk Products Technology :**  
**4.1 Milk Technology :** Organization of rural milk procurement, collection and transport of raw milk.

Quality, testing and grading raw milk, Quality storage grades of whole milk, Skimmed milk and cream.

Processing, packaging, storing, distributing, marketing defects and their control and nutritive properties of the following milks : Pasteurized, standardized, toned, double toned, sterilized, homogenized, reconstituted, recombined and flavoured milks. Preparation of cultured milks, cultures and their management, youghurt, Dahi, Lassi and Srikhand. Preparation of flavoured and sterilized milks. Legal standards, Sanitation requirement for clean and safe milk and for the milk plant equipment.

**4.2 Milk Products Technology :** Selection of raw materials, assembling, production, processing, storing, distributing and marketing milk products such as Butter, Ghee, Khoa, Channa, Cheese; Condensed, evaporated, dried milk and baby food; Ice cream and Kulfi; by products; whey products, butter milk, lactose and casein. Testing Grading, judging milk products-BIS and Agmark specifications, legal standards, quality control nutritive properties. Packaging, processing and operational control Costs.

### 5. Meat Hygiene and Technology :

#### 5.1 Meat Hygiene :

**5.1.1 Ante mortem care and management of food animals, stunning, slaughter and dressing operations; abattoir requirements and designs; Meat inspection procedures and judgement of carcass meat cuts-drading of carcass meat cuts-duties and functions of Veterinarians in Wholesome meat production.**

**5.1.2 Hygienic methods of handling production of meat-spoilage of meat and control measures-Post slaughter physico-chemical changes in meat and factors that influence them-quality improvement methods-Adulteration of meat and defec-tion-Regulatory provisions in Meat trade and Industry.**

### 5.2. Meat Technology

**5.2.1 Physical and chemical characteristics of meat-meat emulsions-methods of preservation of meat-curing, canning, irradiation, packaging of meat and meat products; meat products and formulations.**

**5.3. Byproducts :** Slaughter house by products and their utilisation-Edible and inedible byproducts-social and economic implications of proper utilisation of slaughter house byproducts-Organ products for food and pharmaceuticals.

**5.4. Poultry Products Technology :** Chemical composition and nutritive value of poultry meat, pre slaughter care and management. Slaughtering techniques, inspection, preservation of poultry meat, and products. Legal and BIS standards. Structure, composition and nutritive value of eggs. Microbial spoilage. Preservation and maintenance. Marketing of poultry meat, eggs and products.

**5.5. Rabbit/Fur Animal farming :** Care and management of rabbit meat production. Disposal and utilization of fur and wool and recycling of waste byproducts. Grading of wool.

**6. Extension :** Basic philosophy, objectives, concept and principles of extension. Different Methods adopted to educate farmers under rural conditions. Generation of technology, its transfer and feedback. Problems of constraints in transfer of technology. Animal husbandry programmes for rural development.

### BOTANY

#### PAPER-I

**1. Microbiology and Plant Pathology:** Viruses, bacteria, and plasmids-structure and reproduction. General account of infection, Phytoimmunology. Applications of microbiology in agriculture, industry, medicine and pollution control in air, soil and water.

Important plant diseases caused by viruses, bacteria, mycoplasma, fungi and nematodes. Mode of infection and dissemination. Molecular basis of infection and disease resistance/defence. Physiology of parasitism and control measures. Fungal toxins.

**2. Cryptogams:** Algae, Fungi, Bryophytes, Pteridophytes-structure and reproduction from evolutionary viewpoint. Distribution of Cryptogams in India and their economic potential.

**3. Phanerogams: Gymnosperms:** Concept of Progymnosperms. Classification and distribution of Gymnosperms. Salient features of Cycadales, Coniferrals and Gnetales, their structures and reproduction. General account of Cycadofilicales, Bennettitales and Cordaitales.

**Angiosperms:** Systematics, anatomy, embryology, palynology and phylogeny. Comparative account of various systems of Angiosperm Classification. Study of angiospermic families-Magnoliaceae, Ranunculaceae, Brassicaceae (Cruciferae), Rosaceae, Leguminosae, Euphorbiaceae, Malvaceae, Dipterocarpaceae, Apiaceae (Umbelliferae), Asclepiadaceae, Verbenaceae, Solanaceae, Rubiaceae, Cucurbitaceae, Asteraceae (Composite), Poaceae (Gramineae), Arecaceae (Palmae), Liliaceae, Musaceae, Orchidaceae. Stomata and their types. Anomalous secondary growth, Anatomy of C<sub>3</sub> and C<sub>4</sub> plants.

Development of male and female gametophytes, pollination, fertilization. Endosperm-its development and function. Patterns of embryo development. Polyembryony, apoxmix, Applications of palynology.

#### 4. Plant Utility and Exploitation:

Origin of cultivated plants, Vavilov's centres of origin. Plants as sources for food, fodder, fibres, spices, beverages, drugs, narcotics, insecticides, timber, gums, resins and dyes.

Latex, cellulose Starch and their products. Perfumery. Importance of Ethnobotany in Indian context. Energy plantation. Botanical Gardens and Herbaria.

**5. Morphogenesis:** Totipotency, polarity, symmetry and differentiation. Cell, tissue, organ and protoplast culture. Somatic hybrids and Cybrids.

#### PAPER-II

**1. Cell Biology:** Techniques of Cell Biology. Prokaryotic and eukaryotic cells - structural and ultrastructural details. Structure and function of extra cellular matrix or ECM (cell wall) and membranes-cell adhesion, membrane transport and vesicular transport. Structure and function of cell organelles (chloroplasts, mitochondria, ER, ribosomes, embosomes, lysosomes, peroxisomes, hydrogenosomes). Nucleus, nucleolus, nuclear pore complex. Chromatin and nucleosome. Cell signalling and cell receptors. Signal transduction (G-1 proteins, etc.). Mitosis and meiosis; molecular basis of cell cycle. Numerical and structural variations in chromosomes and their significance. Study of polytene, lampbrush and B-chromosomes-structure, behaviour and significance.

**2. Genetics, Molecular Biology and Evolution:** Development of genetics, and gene versus allele concepts (Pseudoalleles). Quantitative genetics and multiple factors. Linkage and crossing over-methods of gene mapping including molecular maps (idea of mapping function). Sex chromosomes and sexlinked inheritance, sex determination and molecular basis of sex differentiation. Mutation (biochemical and molecular basis). Cytoplasmic inheritance and cytoplasmic genes (including genetics of male sterility). Prions and prion hypothesis. Structure and synthesis of nucleic acids and proteins. Genetic code and regulation of gene expression. Multigene families. Organic evolution-evidences, mechanism and theories. Role of RNA in origin and evolution.

**3. Plant Breeding, Biotechnology and Biostatistics:** Methods of plant breeding -- introduction, selection and hybridization (pedigree, backcross, mass selection, bulk method). Male sterility and heterosis breeding. Use of apomixis in plant breeding. Micropropagation and genetic engineering-methods of transfer of genes and transgenic crops; development and use of molecular markers in plant breeding. Standard deviation and coefficient of variation (CV). Tests of significance (Z-test, t-test and chi-square tests). Probability and distributions (normal, binomial and Poisson distributions). Correlation and regression.

**4. Physiology and Biochemistry:** Water relations, Mineral nutrition and ion transport, mineral deficiencies. Photosynthesis-photochemical reactions, photophosphorylation and carbon pathways including C pathway (photorespiration), C<sub>3</sub>, C<sub>4</sub> and CAM pathways. Respiration (anaerobic and aerobic, including fermentation-electron transport chain and oxidative phosphorylation. Chemiosmotic theory and ATP synthesis. Nitrogen fixation and nitrogen metabolism. Enzymes, coenzymes, energy transfer and energy conservation. Importance of secondary metabolites. Pigments as photoreceptors (plastidial pigments and phytochrome). Photoperiodism and flowering, vernalization, senescence. Growth substances-their chemical nature, role and applications in agri-horticulture, growth indices, growth movements. Stress physiology (heat, water, salinity, metal). Fruit and seed physiology. Dormancy, storage and germination of seed. Fruit ripening -- its molecular basis and manipulation.

**5. Ecology and Plant Geography:** Ecological factors. Concepts and dynamics of community. Plant succession. Concepts of biosphere. Ecosystems and their conservation. Pollution and its control (including phytoremediation).

Forest types of India -- afforestation, deforestation and social forestry. Endangered plants, endemism and Red Data Books. Biodiversity. Convention of

Biological Diversity, Sovereign Rights and Intellectual Property Rights. Biogeochemical cycles. Global warming.

#### CHEMISTRY PAPER-I

##### 1. Atomic structure

Quantum theory, Heisenberg's uncertainty principle, Schrödinger wave equation (time independent). Interpretation of wave function, particle in one-dimensional box, quantum numbers, hydrogen atom wave functions. Shapes of s, p and d orbitals.

##### 2. Chemical bonding

Ionic bond, characteristics of ionic compounds, factors affecting stability of ionic compounds, lattice energy, Born-Haber cycle; covalent bond and its general characteristics, polarities of bonds in molecules and their dipole moments. Valence bond theory, concept of resonance and resonance energy. Molecular orbital theory (LCAO method); bonding in homonuclear molecules: H<sub>2</sub><sup>+</sup>, H<sub>2</sub> to Ne<sub>2</sub>, NO, CO, HF, CN, CN<sup>-</sup>, BeH<sub>2</sub> and CO<sub>2</sub>. Comparison of valence bond and molecular orbital theories, bond order, bond strength and bond length.

##### 3. SOLID STATE

Forms of solids, law of constancy of interfacial angles, crystal systems and crystal classes (crystallographic groups). Designation of crystal faces, lattice structures and unit cell. Laws of rational indices. Bragg's law. X-ray diffraction by crystals. Close packing, radius ratio rules, calculation of some limiting radius ratio values. Structures of NaCl, ZnS, CsCl, CaF<sub>2</sub>, CdI<sub>2</sub> and NaCl. Imperfections in crystals, stoichiometric and nonstoichiometric defects, impurity defects, semi-conductors. Elementary study of liquid crystals.

##### 4. The gaseous state

Equation of state for real gases, intermolecular interactions, liquefaction of gases and critical phenomena, Maxwell's distribution of speeds, intermolecular collisions, collisions on the wall and effusion.

##### 5. Thermodynamics and statistical thermodynamics

Thermodynamic systems, states and processes, work, heat and internal energy; first law of thermodynamics, work done on the systems and heat absorbed in different types of processes; calorimetry, energy and enthalpy changes in various processes and their temperature dependence.

Second law of thermodynamics; entropy as a state function, entropy changes in various process, entropy-reversibility and irreversibility, Free energy functions; criteria for equilibrium, relation between equilibrium constant and thermodynamic quantities; Nernst heat theorem and third law of thermodynamics.

Micro and macro states; canonical ensemble and canonical partition function; electronic, rotational and vibrational partition functions and thermodynamic quantities; chemical equilibrium in ideal gas reactions.

##### 6. Phase equilibria and solutions

Phase equilibria in pure substances; Clausius-Clapeyron equation; phase diagram for a pure substance; phase equilibria in binary systems, partially miscible liquids-upper and lower critical solution temperatures; partial molar quantities, their significance and determination; excess thermodynamic functions and their determination.

##### 7. Electrochemistry

Debye-Huckel theory of strong electrolytes and Debye-Huckel limiting Law for various equilibrium and transport properties. Galvanic cells, concentration cells; electrochemical series, measurement of e.m.f. of cells and its applications fuel cells and batteries.

Processes at electrodes; double layer at the interface; rate of charge transfer, current density; overpotential; electroanalytical techniques-voltametry, polarography, amperometry, cyclic-voltametry, ion selective electrodes and their use.

##### 8. Chemical kinetics

Concentration dependence of rate of reaction; differential and integral rate equations for zeroth, first, second and fractional order reactions. Rate equations involving reverse, parallel, consecutive and chain reactions; effect of temperature and pressure on rate constant. Study of fast reactions by stop-flow and relaxation methods. Collisions and transition state theories.

##### 9. Photochemistry

Absorption of light; decay of excited state by different routes; photochemical reactions between hydrogen and halogens and their quantum yields.

##### 10. Surface phenomena and catalysis

Adsorption from gases and solutions on solid adsorbents, adsorption isotherms-Langmuir and B.E.T. isotherms; determination of surface area, characteristics and mechanism of reaction on heterogeneous catalysts.

##### 11. Bio-inorganic chemistry

Metal ions in biological systems and their role in ion-transport across the membranes (molecular mechanism), ionophores, photosynthesis-PSI, PSII; nitrogen fixation, oxygen-uptake proteins, cytochromes and ferredoxins.

##### 12. Coordination chemistry

(a) Electronic configurations; introduction to theories of bonding in transition metal complexes. Valence bond theory, crystal field theory and its modifications; applications of theories in the explanation of magnetism and electronic spectra of metal complexes.

(b) Isomerism in coordination compounds. IUPAC nomenclature of coordination compounds; stereochemistry of complexes with 4 and 6 coordination numbers; chelate effect and polynuclear complexes; trans effect and its theories; kinetics of substitution reactions in square-planar complexes; thermodynamic and kinetic stability of complexes.

(c) Synthesis and structures of metal carbonyls; carboxylate anions, carbonyl hydrides and metal nitrosyl compounds.

(d) Complexes with aromatic systems, synthesis, structure and bonding in metal olefin complexes, alkyne complexes and cyclopentadienyl complexes; coordinative unsaturation, oxidative addition reactions, insertion reactions, fluxional molecules and their characterization. Compounds with metal-metal bonds and metal atom clusters.

##### 13. General chemistry of 'f' block elements

Lanthanides and actinides; separation, oxidation states, magnetic and spectral properties; lanthanide contraction.

##### 14. Non-Aqueous Solvents

Reactions in liquid NH<sub>3</sub>, HF, SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub>. Failure of solvent system concept, coordination model of non-aqueous solvents. Some highly acidic media, fluoro-sulphuric acid and super acids.

#### PAPER II

**1. Delocalised covalent bonding :** Aromaticity, anti-aromaticity; annulenes, azulenes, tropolones, kekulene, fulvenes, syndones.

**2 (a) Reaction mechanisms :** General methods (both kinetic and non-kinetic) of study of mechanism or organic reactions illustrated by examples-use of isotopes, cross-over experiment, intermediate trapping, stereochemistry; energy diagrams of simple organic reactions-transition states and intermediates; energy of activation; thermodynamic control and kinetic control of reactions.

(b) **Reactive intermediates :** Generation, geometry, stability and reactions of carbenium and carbanium ions, carbanions, free radicals, carbenes, benzyne and nitrenes.

(c) **Substitution reactions :** SN<sub>1</sub>, SN<sub>2</sub>, SN<sub>i</sub>, SN<sub>1'</sub>, SN<sub>2'</sub>, SN<sub>i'</sub> and SRN<sub>1</sub> mechanisms; neighbouring group participation; electrophilic and nucleophilic reactions of aromatic compound including simple heterocyclic compounds-pyrrole, thiophene, indole.

(d) **Elimination reactions :** E<sub>1</sub>, E<sub>2</sub> and E<sub>1c</sub>b mechanisms; orientation in E<sub>2</sub> reactions-Saytzeff and Hoffmann; pyrolytic syn elimination-acetate pyrolysis, Chugaev and Cope eliminations.

(e) **Addition reactions :** Electrophilic addition to C=C and C≡C; nucleophilic addition to C=O, C=N, conjugated olefins and carbonyls.

(f) **Rearrangements :** Pinacol-pinacolone, Hoffmann, Beckmann, Baeyer-Villiger, Favorskii, Fries, Claisen, Cope, Stevens and Wagner-Meerwein rearrangements.

**3. Pericyclic reactions :** Classification and examples; Woodward-Hoffmann rules-electrocyclic reactions, cycloaddition reactions [2+2 and 4+2] and sigmatropic shifts [1, 3; 3, 3 and 1, 5] FMO approach.

**4. Chemistry and mechanism of reactions :** Aldol condensation (including directed aldol condensation), Claisen condensation, Dieckmann, Perkin, Knoevenagel, Wittig, Clemmensen, Wolff-Kishner, Cannizzaro and von Richter reactions; Stobbe, benzoin and acyloin condensations; Fischer indole synthesis, Skraup synthesis, Bischler-Napieralski, Sandmeyer, Reimer-Tiemann and Reformatsky reactions.

##### 5. Polymeric Systems

(a) **Physical chemistry of polymers :** Polymer solutions and their thermodynamic properties; number and weight average molecular weights of polymers. Determination of molecular weights by sedimentation, light scattering, osmotic pressure, viscosity, end group analysis methods.

(b) **Preparation and properties of polymers :** Organic polymers-polyethylene, polystyrene, polyvinyl chloride, Teflon, nylon, terylene, synthetic and natural rubber. Inorganic polymers-phosphonitrilic halides, borazines, silicones and silicates.

(c) **Biopolymers :** Basic bonding in proteins, DNA and RNA.

**6. Synthetic uses of reagents :** OsO<sub>4</sub>, HIO<sub>4</sub>, CrO<sub>3</sub>, Pb(OAc)<sub>4</sub>, SeO<sub>2</sub>, NBS, B<sub>2</sub>H<sub>6</sub>, Na-Liquid NH<sub>3</sub>, LiAlH<sub>4</sub>, NaBH<sub>4</sub> n-BuLi, MCPBA.

**7. Photochemistry :** Photochemical reactions of simple organic compounds, excited and ground states, singlet and triplet states, Norrish-Type I and Type II reactions.

##### 8. Principles of spectroscopy and applications in structure elucidation

(a) **Rotational spectra-**diatomic molecules; isotopic substitution and rotational constants.

(b) **Vibrational spectra-**diatomic molecules, linear triatomic molecules, specific frequencies of functional groups in polyatomic molecules.

(c) **Electronic spectra :** Singlet and triplet states. N->π\* and π->π\* transitions; application to conjugated double bonds and conjugated carbonyls-Woodward-Fieser rules.

(d) **Nuclear magnetic resonance :** Isochronous and anisochronous protons; chemical shift and coupling constants; Application of H<sup>1</sup> NMR to simple organic molecules.

(e) **Mass spectra :** Parent peak, base peak, daughter peak, metastable peak, fragmentation of simple organic molecules;- cleavage, McLafferty rearrangement.

(f) **Electron spin resonance : Inorganic complexes and free radicals.**

#### CHEMICAL ENGINEERING

##### PAPER-I

##### Section A

##### (a) Fluid and Particle Dynamics

Viscosity of fluids. Laminar and turbulent flows. Equation of continuity and Navier-Stokes equation-Bernoulli's theorem. Flow meters. Fluid drag and pressure drop due to friction, Reynold's Number and friction factor - effect of pipe roughness. Economic pipe diameter. Pumps, water, air/steam jet ejectors, compressors, blowers and fans. Agitation and mixing of liquids. Mixing of solids and pastes.

Crushing and Grinding - principles and equipment. Rittinger's and Bond's laws. Filtration and filtration equipment. Fluid-particle mechanics - free and hindered settling. Fluidisation and minimum fluidization velocity, concepts of compressible and incompressible flow. Transport of Solids.

#### (b) Mass Transfer

Molecular diffusion coefficients, First and second law and diffusion, mass transfer coefficients, film and penetration theories of mass transfer. Distillation, simple distillation, relative volatility, fractional distillation, plate and packed columns for distillation. Calculation of theoretical number of plates. Liquid-liquid equilibria. Extraction - theory and practice; Design of gas-absorption columns. Drying. Humidification, dehumidification. Crystallisation. Design of equipment.

#### (c) Heat Transfer

Conduction, thermal conductivity, extended surface heat transfer. Convection - free and forced. Heat transfer coefficients - Nusselt Number. LMTD and effectiveness. NTU methods for the design of Double Pipe and Shell & Tube Heat Exchangers. Analogy between heat and momentum transfer. Boiling and condensation heat transfer. Single and multiple-effect evaporators. Radiation - Stefan-Boltzman Law, emissivity and absorptivity. Calculation of heat load of a furnace. Solar heaters.

#### Section B

#### (d) Novel Separation Processes

Equilibrium separation processes - ion-exchange, osmosis, electro-dialysis, reverse osmosis, ultra-filtration and other membrane processes. Molecular distillation. super critical fluid extraction.

#### (e) Process Equipment Design

Factors affecting vessel design criteria - Cost considerations. Design of storage vessels-vertical, horizontal spherical, underground tanks for atmospheric and higher pressure. Design of closures flat and elliptical head. Design of supports. Materials of construction-characteristics and selection.

#### (f) Process Dynamics and Control

Measuring instruments for process variables like level, pressure, flow, temperature pH and concentration with indication in visual/pneumatic/analog/digital signal forms. Control variable, manipulative variable and load variables. Linear control theory-Laplace, transforms. PID controllers. Block diagram representation transient and frequency response, stability of closed loop system. Advanced control strategies. Computer based process control.

#### Paper-II

#### Section A

#### (a) Material and Energy Balances

Material and energy balance calculations in processes with recycle/bypass/purge. Combustion of solid/liquid/gaseous fuels, stoichiometric relationships and excess air requirements. Adiabatic flame temperature.

#### (b) Chemical Engineering Thermodynamics

Laws of thermodynamics. PVT relationships for pure components and mixtures. Energy functions and inter-relationships - Maxwell's relations. Fugacity, activity and chemical potential. Vapour-liquid equilibria, for ideal/non-ideal, single and multi component systems. criteria for chemical reaction equilibrium, equilibrium constant and equilibrium conversions. Thermodynamic cycles - refrigeration and power.

#### (c) Chemical Reaction Engineering :

Batch reactors - kinetics of homogeneous reactions and interpretation of kinetic data. Ideal flow reactors - CSTR, plug flow reactors and their performance equations. Temperature effects and run-away reactions. Heterogeneous reactions - catalytic and non-catalytic and gas-solid and gas-liquid reactions. Intrinsic kinetics and global rate concept. Importance of inter-phase and intraparticle mass transfer on

performance. Effectiveness factor. Isothermal and non-isothermal reactors and reactor stability.

#### Section B

#### (d) Chemical Technology

Natural organic products - Wood and wood-based chemicals, pulp and paper, Agro industries - sugar, Edible oils extraction (including tree based seeds), Soaps and detergents. Essential oils - Biomass gasification (including biogas). Coal and coal chemical. Petroleum and Natural gas-Petroleum refining (Atomospheric distillation/cracking/reforming) - Petrochemical industries - Polyethylenes (LDPE/HDPE/LLDPE), Polyvinyl Chloride, Polystyrene. Ammonia manufacture. Cement and lime industries. Paints and varnishes. Glass and ceramics. Fermentation - alcohol and antibiotics.

#### (e) Environmental Engineering and Safety

Ecology and Environment. Sources of pollutants in air and water. Green house effect, ozone layer depletion, acid rain. Micrometeorology and dispersion of pollutants in environment. Measurement techniques of pollutant levels and their control strategies. Solid wastes, their hazards and their disposal techniques. Design and performance analysis of pollution control equipment. Fire and explosion hazards rating - HAZOP and HAZAN. Emergency planning, disaster management. Environmental legislations - water, air environment protection Acts. Forest (Conservation) Act.

#### (f) Process Engineering Economics :

Fixed and working capital requirement for a process industry and estimation methods. Cost estimation and comparison of alternatives. Net present value by discounted cash flow. Pay back analysis. IRR, Depreciation, taxes and insurance. Break-even point analysis. Project scheduling - PERT and CPM. Profit and loss account, balance sheet and financial statement. Plant location and plant layout including piping.

#### CIVIL ENGINEERING

#### PAPER-I

#### Part-A :

#### ENGINEERING MECHANICS, STRENGTH OF MATERIALS AND STRUCTURAL ANALYSIS.

#### ENGINEERING MECHANICS :

Units and Dimensions, SI Units, Vectors, Concept of Force, Concept of particle and rigid body. Concurrent, Non Concurrent and parallel forces in a plane, moment of force and Varignon's theorem, free body diagram, conditions of equilibrium, Principle of virtual work, equivalent force system.

First and Second Moment of area, Mass moment of Inertia.

Static Friction, Inclined Plane and bearings.

Kinematics and Kinetics :

Kinematics in Cartesian and Polar Coordinates, motion under uniForm and nonuniForm acceleration, motion under gravity. Kinetics of particle : Momentum and Energy principles, D' Alembert's Principle, Collision of elastic bodies, rotation of rigid bodies, simple harmonic motion, Flywheel.

#### STRENGTH OF MATERIALS :

Simple Stress and Strain, Elastic constants, axially loaded compression members, Shear force and bending moment, theory of simple bending, Shear Stress distribution across cross sections, Beams of uniForm strength, Leaf spring. Strain Energy in direct stress, bending & shear. Deflection of beams : Mecaulay's method, Mohr's Moment area method, Conjugate beam method, unit load method. Torsion of Shafts, Transmission of power, close coiled helical springs, Elastic stability of columns, Euler's Rankine's and Secant formulae. Principal Stresses and Strains in two dimensions, Mohr's Circle, Theories of Elastic Failure, Thin and Thick cylinder : Stresses due to internal and external pressure-Lame's equations.

#### STRUCTURAL ANALYSIS :

Castigliano's theorems I and II, unit load method, method of consistent deformation applied to beams and pin jointed trusses. Slope-deflection, moment distribution, Kani's method of analysis and column Analogy method applied to indeterminate beams and rigid frames.

Rolling loads and Influences lines : Influences lines for Shear Force and Bending moment at a section of a beam. Criteria for maximum shear force and bending Moment in beams traversed by a system of moving loads. Influences lines for simply supported plane pin jointed trusses.

Arches : Three hinged, two hinged and fixed arches, rib shortening and temperature effects, influence lines in arches.

Matrix methods of analysis : Force method and displacement method of analysis of indeterminate beams and rigid frames.

Plastic Analysis of beams and frames : Theory of plastic bending, plastic analysis, statical method, Mechanism method. Unsymmetrical bending : Moment of inertia, product of inertia, position of Neutral Axis and Principle axes, calculation of bending stresses.

#### Part-B

#### DESIGN OF STRUCTURES : STEEL, CONCRETE AND MASONRY STRUCTURES.

#### STRUCTURAL STEEL DESIGN :

Structural Steel : Factors of safety and load factors. Rivetted, bolted and welded joints and connections. Design of tension and compression members, beams of built up section, rivetted and welded plate girders, gantry girders, stanchions with battens and lacings, slab and gusseted column bases.

Design of highway and railway bridges : Through and deck type plate girder, Warren girder, Pratt truss.

#### DESIGN OF CONCRETE AND MASONRY STRUCTURES :

Concept of mix design. Reinforced Concrete : Working Stress and Limit State method of design-Recommendations of I.S. codes design of one way and two way slabs, stair-case slabs, simple and continuous beams of rectangular, T and L sections. Compression members under direct load with or without eccentricity, Isolated and combined footings.

Cantilever and Counterfort type retaining walls.

Water tanks : Design requirements for Rectangular and circular tanks resting on ground.

Prestressed concrete : Methods and systems of prestressing, anchorages, Analysis and design of sections for flexure based on working stress, loss of prestress.

Design of brick masonry as per I.S. Codes

Design of masonry retaining walls.

#### Part-C

#### FLUID MECHANICS, OPEN CHANNEL FLOW AND HYDRAULIC MACHINES

Fluid Mechanics : Fluid properties and their role in fluid motion, fluid statics including forces acting on plane and curve surfaces.

Kinematics and Dynamics of Fluid flow : Velocity and accelerations, stream lines, equation of continuity, irrotational and rotational flow, velocity potential and stream functions, flownet, methods of drawing flownet, sources and sinks, flow separation, free and forced vortices.

Control volume equation, continuity, momentum, energy and moment of momentum equations from control volume equation, Navier-Stokes equation, Euler's equation of motion, application to fluid flow problems, pipe flow, plane, curved, stationary and moving vanes, sluice gates, weirs, orifice meters and Venturi meters.

Dimensional Analysis and Similitude : Buckingham's Pi-theorem, dimensionless parameters, similitude theory, model laws, undistorted and distorted models.

**Laminar Flow** : Laminar flow between parallel, stationary and moving plates, flow through tube.

**Boundary layer** : Laminar and turbulent boundary layer on a flat plate, laminar sublayer, smooth and rough boundaries, drag and lift.

Turbulent flow through pipes : Characteristics of turbulent flow, velocity distribution and variation of pipe friction factor, hydraulic grade line and total energy line, siphons, expansion and contractions in pipes, pipe networks, water hammer in pipes and surge tanks.

**Open channel flow** : UniForm and non-uniForm flows, momentum and energy correction factors, specific energy and specific force, critical depth, resistance equations and variation of roughness coefficient, rapidly varied flow, flow in contractions, flow at sudden drop, hydraulic jump and its applications surges and waves, gradually varied flow, classification of surface profiles, control section, step method of integration of varied flow equation, moving surges and hydraulic bore.

#### HYDRAULIC MACHINES AND HYDROPOWER :

Centrifugal pumps-Types, characteristics, Net Positive Suction Height (NPSH), specific speed. Pumps in parallel.

Reciprocating pumps, Airvessels, Hydraulic ram, efficiency parameters, Rotary and positive displacement pumps, diaphragm and jet pumps.

Hydraulic turbines, types classification, Choice of turbines, performance parameters, controls, characteristics, specific speed.

Principles of hydropower development. Type, layouts and Component works. Surge tanks, types and choice. Flow duration curves and dependable flow. Storage an pondage. Pumped storage plants. Special features of mini, micro-hydel plants.

#### Part-D

#### GEO TECHNICAL ENGINEERING

Types of soil, phase relationships, consistency limits particles size distribution, classifications of soil, structure and clay mineralogy.

Capillary water and structural water, effective stress and pore water pressure, Darcy's Law, factors affecting permeability, determination of permeability, permeability of stratified soil deposits.

Seepage pressure, quick sand condition, compressibility and consolidation, Terzaghi's theory of one dimensional consolidation, consolidation test.

Compaction of soil, field control of compaction. Total stress and effective stress parameters, pore pressure coefficients.

Shear strength of soils, Mohr Coulomb failure theory, Shear tests.

Earth pressure at rest, active and passive pressures, Rankine's theory, Coulomb's wedge theory, earth pressure on retaining wall, sheetpile walls, Braced excavation.

Bearing capacity, Terzaghi and other important theories, net and gross bearing pressure.

Immediate and consolidation settlement. Stability of slope, Total Stress and Effective Stress methods, Conventional methods of slices, stability number.

Subsurface exploration, methods of boring, sampling, penetration tests, pressure meter tests.

Essential features of foundation, types of foundation, design criteria, choice of type of foundation, stress distribution in soils, Boussinessq's theory, Newmarks's chart, pressure bulb, contact pressure, applicability of different bearing capacity theories, evaluation of bearing capacity from field tests, allowable bearing capacity, Settlement analysis, allowable settlement.

Proportioning of footing, isolated and combined footings, rafts, buoyancy rafts, Pile foundation, types of piles, pile capacity, static and dynamic analysis, design of pile groups, pile load test, settlement of piles, lateral capacity. Foundation for

Bridges. Ground improvement techniques-preloading, sand drains, stone column, grouting, soil stabilisation.

## PAPER-II

### Part-A

## CONSTRUCTION TECHNOLOGY, EQUIPMENT, PLANNING AND MANAGEMENT

### 1. Construction Technology :

Engineering Materials :

Physical properties of construction materials : Stones, Bricks and Tiles; Lime, Cement and Surkhi Mortars; Lime Concrete and Cement Concrete, Properties of freshly mixed and hardened concrete, Flooring Tiles, use of ferrocement, fibre-reinforced and polymer concrete, high strength concrete and light weight concrete. Timber : Properties and uses; defects in timber; seasoning and preservation of timber. Plastics, rubber and damp-proofing materials, termite proofing, Materials, for Low cost housing.

### Construction :

Building components and their functions; Brick masonry : Bonds, jointing. Stone masonry. Design of Brick masonry walls as per I.S. codes, factors of safety, serviceability and strength requirements; plastering, pointing. Types of Floors & Roofs. Ventilators, Repairs in buildings. Functional planning of building : Building orientation, circulation, grouping of areas, privacy concept and design of energy efficient building; provisions of National Building Code.

Building estimates and specifications; Cost of works; valuation.

### 2. Construction Equipment :

Standard and special types of equipment, Preventive maintenance and repair, factors affecting the selection of equipment, economical life, time and motion study, capital and maintenance cost.

**Concreting equipments** : Weigh batcher, mixer, vibration, batching plant, Concrete pump.

**Earth-work equipment** : Power shovel hoe, bulldozer, dumper, trailers, and tractors, rollers, sheep foot roller.

**3. Construction Planning and Management** : Construction activity, schedules, job layout, bar charts, organization of contracting firms, project control and supervision. Cost reduction measures.

**New-work analysis** : CPM and PERT analysis, Float Times, cashing of activities, contraction of network for cost optimization, up dating, Cost analysis and resource allocation.

Elements of Engineering Economics, methods of appraisal, present worth, annual cost, benefit-cost, incremental analysis. Economy of scale and size. Choosing between alternatives including levels of investments. Project profitability.

### Part-B

## SURVEY AND TRANSPORTATION ENGINEERING

**Survey** : Common methods of distance and angle measurements, plane table survey, levelling traverse survey, triangulation survey, corrections, and adjustments, contouring, topographical map. Surveying instruments for above purposes. Tacheometry. Circular and transition curves. Principles of photogrammetry.

**Railways** : Permanent way, sleepers, rail fastenings, ballast, points and crossings, design of turn outs, stations and yards, turntables, signals, and interlocking, level-crossing. Construction and maintenance of permanent ways : Superelevation, creep of rail, ruling gradient, track resistance, tractive effort, relaying of track.

**Highway Engineering** : Principles of highway planning, Highway alignments. Geometrical design : Cross section, camber, superelevation, horizontal and vertical curves. Classification of roads : low cost roads, flexible pavements, rigid pavements. Design of pavements and their construction, evaluation of pavement failure and strengthening. Drainage of roads : Surface and sub-surface drainage.

**Traffic Engineering** : Forecasting techniques, origin and destination survey, highway capacity. Channelised and unchannelised intersections, rotary design elements, markings, sign, signals, street lighting; Traffic surveys. Principle of highway financing.

### Part-c :

## HYDROLOGY, WATER RESOURCES AND ENGINEERING :

**Hydrology** : Hydrological cycle, precipitation, evaporation, transpiration, depression storage, infiltration, overland flow, hydrograph, flood frequency analysis, flood estimation, flood routing through a reservoir, channel flow routing-Muskingam method.

**Ground water flow** : Specific yield, storage coefficient, coefficient of permeability, confined and unconfined aquifers, aquitards, radial flow into a well under confined and unconfined conditions, tube wells, pumping and recuperation tests, ground water potential.

**WATER RESOURCES ENGINEERING** : Ground and surface water resource, single and multipurpose projects, storage capacity of reservoirs, reservoir losses, reservoir sedimentation, economics of water resources projects.

**IRRIGATION ENGINEERING** : Water requirements of crops : consumptive use, quality of water for irrigation, duty and delta, irrigation methods and their efficiencies.

**Canals** : Distribution systems for canal irrigation, canal capacity, canal losses, alignment of main and distributory canals, most efficient section, lined canals, their design, regime theory, critical shear stress, bed load, local and suspended load transport, cost analysis of lined and unlined canals, drainage behind lining.

**Water logging** : causes and control, drainage system design, salinity.

**Canal structures** : Design of cross regulators, head regulators, canal falls, aqueducts, metering flumes and canal outlets. **Diversion head work** : Principles and design of weirs of permeable and impermeable foundation, Khosla's theory, energy dissipation, stilling basin, sediment excluders.

**Storage works** : Types of dams, design, principles of rigid gravity and earth dams, stability analysis, foundation treatment, joints and galleries, control of seepage. **Spillways** : Spillway types, crest gates, energy dissipation.

**River training** : Objectives of river training, methods of river training.

### Part-D

## ENVIRONMENTAL ENGINEERING

**Water Supply** : Estimation of surface and subsurface water resources, predicting demand for water, impurities, of water and their significance, physical, chemical and bacteriological analysis, waterborne diseases, standards for potable water.

**Intake of water** : pumping and gravity schemes. **Water treatment** : principles of coagulation, flocculation and sedimentation; slow-, rapid-, pressure-, filters; chlorination, softening, removal of taste, odour and salinity.

**Water storage and distribution** : storage and balancing reservoirs : types, location and capacity. **Distribution system** : layout, hydraulics of pipe lines, pipe fittings, valves including check and pressure reducing valves, meters, analysis of distribution systems, leak detection, maintenance of distribution systems, pumping stations and their operations.

**Sewage systems** : Domestic and industrial wastes, storm sewage-separate and combined systems, flow through sewers, design of sewers, sewer appurtenances, manholes, inlets, junctions, siphon. **Plumbing in public buildings.**

**Sewage characterisation** : BOD, COD, solids, dissolved oxygen, nitrogen and TOC. Standards of disposal in normal water course and on land.

**Sewage treatment** : Working principles, units, chambers, sedimentation tanks, trickling filters, oxidation ponds, activated

sludge process, septic tank, disposal of sludge, recycling of waste water.

**Solid waste** : collection and disposal in rural and urban contexts, management of long-term ill-effects.

**Environmental pollution** : Sustainable development. Radioactive wastes and disposal. Environmental impact assessment for thermal power plants, mines, river valley projects. Air pollution. Pollution control acts.

## FORESTRY

### PAPER-I

#### Section A

### 1. Silviculture - General :

**General Silvicultural Principles** : ecological and physiological factors influencing vegetation, natural and artificial regeneration of forests; methods of propagation, grafting techniques; site factors; nursery and planting techniques-nursery beds, polybags and maintenance, water budgeting, grading and hardening of seedlings; special approaches; establishment and tending.

### 2. Silviculture - systems :

Clear felling, uniform shelter wood selection, coppice and conversion systems. Management of silviculture systems of temperate, subtropical, humid tropical, dry tropical and coastal tropical forests with special reference to plantation silviculture, choice of species, establishment and management of standards, enrichment methods, technical constraints, intensive mechanized methods, aerial seeding thinning.

### 3. Silviculture - Mangrove and Cold desert :

**Mangrove** : habitat and characteristics, mangrove, plantation-establishment and rehabilitation of degraded mangrove formations; silvicultural systems for mangrove; protection of habitats against natural disasters.

**Cold desert** - Characteristics, identification and management of species.

### 4. Silviculture of trees :

Traditional and recent advances in tropical silvicultural research and practices. Silviculture of some of the economically important species in India such as *Acacia catechu*, *Acacia nilotica*, *Acacia auriculiformis*, *Albizia lebbek*, *Albizia procera*, *Anthocephalus Cadamba*, *Anogeissus latifolia*, *Azadirachta indica*, *Bamboo spp.*, *Butea monosperma*, *Cassia siamea*, *Casuarina equisetifolia*, *Cedrus deodara*, *Chukrasia tabularis*, *Dalbergia sisoo*, *Dipterocarpus spp.*, *Embelica officinilis*, *Eucalyptus spp.*, *Gmelina Arborea*, *Hardwickia binata*, *Largerstroemia lanceolata*, *Pinus roxburghi*, *Populus spp.*, *Pterocarpus marsupium*, *Prosopis juliflora*, *Santalum album*, *Semecarpus anacardium*, *Shorea robusta*, *Salmalia malabaricum*, *Tectona grandis*, *Terminalis tomemosa*, *Tamarindus indica*.

#### Section B

### 1. Agroforestry, Social Forestry, Joint Forest Management and Tribology :

**Agroforestry** - scope and necessity; role in the life of people and domestic animals and in integrated land use, planning especially related to (i) soil and water conservation; (ii) water recharge; (iii) nutrient availability to crops; (iv) nature and ecosystem preservation including ecological balances through pest-predator relationships and (v) providing opportunities for enhancing bio-diversity, medicinal and other flora and fauna. **Agro forestry systems** under different agro-ecological zones; selection of species and role of multipurpose trees and NTFPs, techniques, food, fodder and fuel security. **Research and Extension needs.**

**Social/Urban Forestry** : objectives, scope and necessity; peoples participation.

**JFM** - principles, objectives, methodology, scope, benefits and role of NGOs.

**Tribology** - tribal scene in India; tribes, concept of races, principles of social grouping, stages of tribal economy, education, cultural tradition, customs, ethos and participation in forestry programmes.

### 2. Forest Soils, Soil Conservation and

### Watershed management :

**Forests Soils**: classification, factors affecting soil formation; physical, chemical and biological properties.

**Soil conservation** - definition, causes for erosion; types - wind and water erosion; conservation and management of eroded soils/areas, wind breaks, shelter belts; sand dunes; reclamation of saline and alkaline soils, water logged and other waste lands. Role of forests in conserving soils. Maintenance and build up of soil organic matter, provision of loppings for green leaf manuring; forest leaf litter and composting; Role of microorganisms in ameliorating soils; N and C cycles, VAM.

**Watershed Management** - concepts of watershed; role of mini-forests and forest trees in overall resource management, forest hydrology, watershed development in respect of torrent control, river channel stabilization, avalanche and landslide controls, rehabilitation of degraded areas; hilly and mountain areas; watershed management and environmental functions of forests; water-harvesting and conservation; ground water recharge and watershed management; role of integrating forest trees, horticultural crops, field crops, grass and fodders.

### 3. Environmental Conservation and Biodiversity :

**Environment**; components and importance, principles of conservation, impact of deforestation; forest fires and various human activities like mining, construction and developmental projects, population growth on environment.

**Pollution** - types, global warming, green house effects, ozone layer depletion, acid rain, impact and control measures, environmental monitoring; concept of sustainable development. Role of trees and forests in environmental conservation; control and prevention of air, water and noise pollution. Environmental policy and legislation in India. Environmental Impact Assessment. Economics assessment of watershed development vis-a-vis ecological and environmental protection.

### 4. Tree Improvement and Seed Technology :

General concept of tree improvement, methods and techniques, variation and its use, provenance, seed source, exotics; quantitative aspects of forest tree improvement, seed production and seed orchards, progeny tests, use of tree improvement in natural forest and stand improvement, genetic testing programming, selection and breeding for resistance to diseases, insects, and adverse environment; the genetic base, forest genetic resources and gene conservation in situ and ex-situ. Cost benefit ratio, economic evaluation.

## PAPER II

### Section A

### 1. Forest Management and Management Systems :

Objective and principles; techniques; stand structure and dynamics, sustained yield relation; rotation, normal forest, growing stock; regulation of yield; management of forest plantations, commercial forests, forest cover monitoring. Approaches viz., (i) site-specific planning, (ii) strategic planning, (iii) Approval, sanction and expenditure, (iv) Monitoring (v) Reporting and governance. Details of steps involved such as formation of Village Forest Committees, Joint Forest Participatory Management.

### 2. Forest Working Plan :

Forest planning, evaluation and monitoring tools and approaches for integrated planning; multipurpose development of forest resources and forest industries development; working plans and working schemes, their role in nature conservation, bio-diversity and other dimensions; preparation and control. Divisional Working Plans, Annual Plan of Operations.



### 3. Forest Sensation and Remote Sensing :

Methods of measuring - diameter, girth, height and volume of trees; form-factor; volume estimation of stand, current annual increment; mean annual increment. Sampling methods and sample plots. Yield calculation; yield and stand tables, forest cover monitoring through remote sensing; Geographic Information Systems for management and modelling.

**4. Surveying and Forest Engineering :** Forest surveying - different methods of surveying, maps and map reading. Basic principles of forest engineering. Building materials and construction. Roads and Bridges; General principles, objects, types, simple design and construction of timber bridges.

#### Section B

#### 1. Forest Ecology and Ethnobotany :

**Forest ecology** - Biotic and abiotic components, forest eco-systems; forest community concepts; vegetation concepts, ecological succession and climax, primary productivity, nutrient cycling and water relations; physiology in stress environments (drought, water logging salinity and alkalinity). Forest types in India, identification of species, composition and associations; dendrology, taxonomic classification, principles and establishment of herbaria and arboreta. Conservation of forest ecosystems. Clonal parks, Role of **Ethnobotany** in Indian Systems of Medicine; Ayurveda and Unani - Introduction, nomenclature, habitat, distribution and botanical features of medicinal and aromatic plants. Factors affecting action and toxicity of drug plants and their chemical constituents.

#### 2. Forest Resources and Utilization :

Environmentally sound forest harvesting practices; logging and extraction techniques and principles, transportation system, storage and sale; Non-Timber Forest Products (NTFPs) definition and scope; gums, resins, oleoresins, fibres, oil seeds nuts, rubber, canes, bamboos, medicinal plants, charcoal, lac and shellac, Katha and Bidi leaves, collection; processing and disposal.

Need and importance of wood seasoning and preservation; general principles of seasoning, air and kiln seasoning, solar dehumidification, steam heated and electrical kilns. Composite wood; adhesives-manufacture, properties, uses, plywood manufacture-properties, uses, fibre boards-manufacture properties, uses; particle boards manufacture; properties uses. Present status of composite wood industry in India in future expansion plans. Pulp-paper and rayon; present position of supply of raw material to industry, wood substitution, utilization of plantation wood; problems and possibilities.

Anatomical structure of wood, defects and abnormalities of wood, timber identification - general principles.

#### 3. Forest Protection & Wildlife Biology :

Injuries to forest - abiotic and biotic, destructive agencies, insect-pests and disease, effects of air pollution on forests and forest die back. Susceptibility of forests to damage, nature of damage, cause, prevention, protective measures and benefits due to chemical and biological control. General forest protection against fire, equipment and methods, controlled use of fire, economic and environmental costs; timber salvage operations after natural disasters. Role of afforestation and forest regeneration in absorption of CO<sub>2</sub>. Rotational and controlled grazing, different methods of control against grazing and browsing animals; effect of wild animals on forest regeneration, human impacts; encroachment, poaching, grazing, live fencing, theft, shifting cultivation and control.

#### 4. Forest Economics and Legislation :

**Forest economics:** fundamental principles, cost-benefit analyses; estimation of demand and supply; analysis of trends in the national and international market and changes in production and consumption

patterns; assessment and projection of market structures; role of private sector and co-operatives; role of corporate financing. Socio-economic analyses of forest productivity and attitudes; valuation of forest goods and service.

Legislation-History of forest development; Indian Forest Policy of 1894, 1952 and 1990. National Forest Policy, 1988 of People's involvement, Joint Forest Management, Involvement of women; Forestry Policies and issues related to land use, timber and non-timber products, sustainable forest management; industrialisation policies; institutional and structural changes. Decentralization and Forestry Public Administration. Forest laws, necessity; general principles, Indian Forest Act 1927; Forest Conservation Act, 1980; Wildlife Protection Act 1972 and their amendments; Application of Indian Penal Code to Forestry. Scope and objectives of Forest Inventory.

#### GEOLOGY

##### PAPER I

##### Section-A

#### (i) General Geology

The Solar System, meteorites, origin and interior of the earth. Radioactivity and age of earth; Volcanoes- causes and products, volcanic belts. Earthquakes-causes, effects, earthquake belts, seismicity of India, intensity and magnitude, seismographs. Island arcs, deep sea trenches and mid-ocean ridges. Continental drift-evidences and mechanics; seafloor spreading, plate tectonics. Isostasy, orogeny and epeirogeny. Continents and oceans.

#### (ii) Geomorphology and Remote Sensing

Basic concepts of geomorphology. Weathering and mass wasting. Landforms, slopes and drainage. Geomorphic cycles and their interpretation. Morphology and its relation to structures and lithology. Applications of geomorphology in mineral prospecting, civil engineering, hydrology and environmental studies. Geomorphology of Indian sub-continent.

Aerial photographs and their interpretation-merits and limitations. The Electronmagnetic Spectrum. Orbiting satellites and sensor systems. Indian Remote Sensing Satellites. Satellites data products. Applications of remote sensing in geology. The Geographic Information System and its applications. Global Positioning System.

#### (iii) Structural geology

Principles of geologic mapping and map reading, projection diagrams, stress and strain ellipsoid and stress-strain relationships of elastic, plastic and viscous materials. Strain markers in deformed rocks. Behaviour of minerals and rocks under deformation conditions. Folds and faults classification and mechanics. Structural analysis of folds, foliations, lineations, joints and faults, unconformities. Superposed deformation. Time-relationship between crystallization and deformation. Introduction to petrofabrics.

#### Section-B

#### (iv) Paleontology

Species- definition and nomenclature. Megafossils and Microfossils. Modes of preservation of fossils. Different kinds of microfossils. Application of microfossils in correlation, petroleum exploration, paleoclimatic and paleoceanographic studies. Morphology, geological history and evolutionary trend in Cephalopoda, Trilobita, Brachiopoda, Echinoidea and Anthozoa. Stratigraphic utility of Ammonoidea, Trilobita and Graptoloidea. Evolutionary trend in Hominidae, Equidae and Proboscidae. Siwalik fauna. Gondwana flora and its importance.

#### (v) Stratigraphy and Geology of India

Classification of stratigraphic sequences: lithostratigraphic, biostratigraphic, chronostratigraphic and magnetostratigraphic and their interrelationships. Distribution and classification of Precambrian rocks of India. Study of stratigraphic distribution

and lithology of Phanerozoic rocks of India with reference to fauna, flora and economic importance. Major boundary problems- Cambrian/Precambrian, Permian/Triassic, Cretaceous/Tertiary and Pliocene/Pleistocene. Study of climatic conditions, paleogeography and igneous activity in the Indian subcontinent in the geological past. Tectonic framework of India. Evolution of the Himalayas.

**(vi) Hydrogeology and Engineering Geology :** Hydrologic cycle and genetic classification of water. Movement of subsurface water. Springs. Porosity, permeability, hydraulic conductivity, transmissivity and storage coefficient, classification of aquifers. Water-bearing characteristics of rocks. Groundwater chemistry. Salt water intrusion. Types of wells. Drainage basin morphometry. Exploration for groundwater. Groundwater recharge. Problems and management of groundwater. Rainwater harvesting. Engineering properties of rocks. Geological investigations for dams, tunnels and bridges. Rock as construction material. Alkali-aggregate reaction. Landslides-causes, prevention and rehabilitation. Earthquake-resistant structures.

#### Paper-II

##### Section-A

#### (i) Mineralogy

Classification of crystals into systems and classes of symmetry. International system of crystallographic notation. Use of projection diagrams to represent crystal symmetry. Crystal defects. Elements of X-ray crystallography.

Petrological microscope and accessories. Optical properties of common rock forming minerals. Pleochroism, extinction angle, double refraction, birefringence, twinning and dispersion in minerals. Physical and chemical characters of rock forming silicate mineral groups. Structural classification of silicates. Common minerals of igneous and metamorphic rocks. Minerals of the carbonate, phosphate, sulphide and halide groups.

#### (ii) Igneous and Metamorphic Petrology

Generation and crystallisation of magma. Crystallisation of albite-anorthite, diopside-anorthite and diopside-wollastonite-silica systems. Reaction principle., Magmatic differentiation and assimilation. Petrogenetic significance of the textures and structures of igneous rocks. Petrography and petrogenesis of granite, syenite, diorite, basic and ultrabasic groups, charnockite, anorthosite and alkaline rocks. Carbonatites. Deccan volcanic province.

Types and agents of metamorphism. Metamorphic grades and zones. Phase rule. Facies of regional and contact metamorphism. ACF and AKF diagrams. Textures and structures of metamorphic rocks. Metamorphism of arenaceous, argillaceous and basic rocks. Minerals assemblages Retrograde metamorphism. Metasomatism and granitisation, migmatites, Granulite terrains of India.

#### (iii) Sedimentology

Sedimentary rocks: Processes of formation. diagenesis and lithification. Properties of sediments. Clastic and non-clastic rocks-their classification, petrography and depositional environment. Sedimentary facies and provenance. Sedimentary structures and their significance. Heavy minerals and their significance. Sedimentary basins of India.

#### Section-B

#### (iv) Economic Geology

Ore, ore minerals and gangue, tenor of ore, classification of ore deposits. Process of formation of minerals deposits. Controls of ore localisation. Ore textures and structures. Metallogenic epochs and provinces. Geology of the important Indian deposits of aluminium, chromium, copper, gold, iron, lead zinc, manganese, titanium, uranium and thorium and industrial minerals. Deposits of coal and petroleum in India. National Mineral Policy. Conservation and utilization of mineral resources. Marine mineral resources and Law of Sea.

#### (v) Mining Geology

Methods of prospecting-geological, geophysical, geochemical and geobotanical. Techniques of sampling. Estimation of reserves or ore. Methods of exploration and mining metallic ores, industrial minerals and marine mineral resources. Mineral beneficiation and ore dressing.

#### (vi) Geochemistry and Environmental Geology

Cosmic abundance of elements. Composition of the planets and meteorites. Structure and composition of earth and distribution of elements. Trace elements. Elements of crystal chemistry-types of chemical bonds, coordination number. Isomorphism and polymorphism. Elementary thermodynamics. Natural hazards-floods, landslides, coastal erosion, earthquakes and volcanic activity and mitigation. Environmental impact of urbanization, open cast mining, industrial and radioactive waste disposal, use of fertilizers, dumping of mine waste and fly-ash. Pollution of ground and surface water, marine pollution Environment protection-legislative measures in India.

#### Mathematics

##### Paper-I

##### Section-A

#### Linear Algebra

Vector, space, linear dependence and independence, subspaces, bases, dimensions. Finite dimensional vector spaces. Matrices, Cayley-Hamilton theorem, eigenvalues and eigenvectors, matrix of linear transformation, row and column reduction, Echelon form, equivalence, congruences and similarity, reduction to canonical form, rank, orthogonal, symmetrical, skew symmetrical, unitary, hermitian, skew-hermitian forms their eigenvalues. Orthogonal and unitary reduction of quadratic and hermitian forms, positive definite quadratic forms.

#### Calculus

Real numbers, limits, continuity, differentiability, mean-value theorems, Taylor's theorem with remainders, indeterminate forms, maximas and minima, asymptotes. Functions of several variables: continuity, differentiability, partial derivatives, maxima and minima, Lagrange's method of multipliers, Jacobian. Riemann's definition of definite integrals, indefinite integrals, infinite and improper integrals, beta and gamma functions. Double and triple integrals (evaluation techniques only). Areas, surface and volumes, centre of gravity.

#### Analytic Geometry :

Cartesian and polar coordinates in two and three dimensions, second degree equations in two and three dimensions, reduction to canonical forms, straight lines, shortest distance between two skew lines, plane, sphere, cone, cylinder, paraboloid, ellipsoid, hyperboloid of one and two sheets and their properties.

#### Section-B

#### Ordinary Differential Equations :

Formulation of differential equations, order and degree, equations of first order and first degree, integrating factor, equations of first order but not of first degree, Clairaut's equation, singular solution. Higher order linear equations, with constant coefficients, complementary function and particular integral, general solution, Euler-Cauchy equation.

Second order linear equations with variable coefficients, determination of complete solution when one solution is known, method of variation of parameters.

#### Dynamics, Statics and Hydrostatics :

Degree of freedom and constraints, rectilinear motion, simple harmonic motion, motion in a plane, projectiles, constrained motion, work and energy, conservation of energy, motion under impulsive forces, Kepler's laws, orbits under central forces, motion of varying mass, motion under resistance.

Equilibrium of a system of particles, work and potential energy, friction, common

catenary, principle of virtual work, stability of equilibrium, equilibrium of forces in three dimensions.

Pressure of heavy fluids, equilibrium of fluids under given system of forces Bernoulli's equation, centre of pressure, thrust on curved surfaces, equilibrium of floating bodies, stability of equilibrium, metacentre, pressure of gases.

#### Vector Analysis :

Scalar and vector fields, triple products, differentiation of vector function of a scalar variable, Gradient, divergence and curl in cartesian, cylindrical and spherical coordinates and their physical interpretations. Higher order derivatives, vector identities and vector equations.

Application to Geometry: Curves in space, curvature and torsion. Serret-Frenet's formulae, Gauss and Stokes' theorems, Green's identities.

#### Paper-II Section-A

#### Algebra:

Groups, subgroups, normal subgroups, homomorphism of groups quotient groups basic isomorphism theorems, Sylow's group, permutation groups, Cayley theorem. Rings and ideals, principal ideal domains, unique factorization domains and Euclidean domains. Field extensions, finite fields.

#### Real Analysis :

Real number system, ordered sets, bounds, ordered field, real number system as an ordered field with least upper bound property, Cauchy sequence, completeness, Continuity and uniform continuity of functions, properties of continuous functions on compact sets. Riemann integral, improper integrals, absolute and conditional convergence of series of real and complex terms, rearrangement of series. Uniform convergence, continuity, differentiability and integrability for sequences and series of functions. Differentiation of functions of several variables, change in the order of partial derivatives, implicit function theorem, maxima and minima. Multiple integrals.

**Complex Analysis :** Analytic function, Cauchy-Riemann equations, Cauchy's theorem, Cauchy's integral formula, power series, Taylor's series, Laurent's Series, Singularities, Cauchy's residue theorem, contour integration. Conformal mapping, bilinear transformations.

#### Linear Programming :

Linear programming problems, basic solution, basic feasible solution and optimal solution, graphical method and Simplex method of solutions. Duality. Transportation and assignment problems. Travelling salesman problems.

#### Section-B

#### Partial differential equations:

Curves and surfaces in three dimensions, formulation of partial differential equations, solutions of equations of type  $dx/p=dy/q=dz/r$ ; orthogonal trajectories, Pfaffian differential equations; partial differential equations of the first order, solvability by Cauchy's method of characteristics; Charpit's method of solutions, linear partial differential equations of the second order with constant coefficients, equations of vibrating string, heat equation, Laplace equation.

#### Numerical Analysis and Computer programming:

Numerical methods: Solution of algebraic and transcendental equations of one variable by bisection, Regula-Falsi and Newton-Raphson methods, solution of system of linear equations by Gaussian elimination and Gauss-Jordan (direct) methods, Gauss-Seidel (iterative) method. Newton's (Forward and backward) and Lagrange's method of interpolation. Numerical integration: Simpson's one-third rule, trapezoidal rule, Gaussian quadrature formula.

Numerical solution of ordinary differential equations: Euler and Runge-Kutta methods.

Computer Programming: Storage of numbers in Computers, bits, bytes and words,

binary system. arithmetic and logical operations on numbers. Bitwise operations. AND, OR, XOR, NOT, and shift/rotate operators. Octal and Hexadecimal Systems. Conversion to and from decimal Systems.

Representation of unsigned integers, signed integers and reals, double precision reals and long integers.

Algorithms and flow charts for solving numerical analysis problems.

Developing simple programs in Basic for problems involving techniques covered in the numerical analysis.

#### Mechanics and Fluid Dynamics :

Generalised coordinates, constraints, holonomic and non-holonomic systems. D'Alembert's principle and Lagrange's equations, Hamilton equations, moment of inertia, motion of rigid bodies in two dimensions.

Equation of continuity, Euler's equation of motion for inviscid flow, stream-lines, path of a particle, potential flow, two-dimensional and axisymmetric motion, sources and sinks, vortex motion, flow past a cylinder and a sphere, method of images. Navier-Stokes equation for a viscous fluid.

#### Mechanical Engineering

##### Paper I

#### 1. Theory of Machines

Kinematic and dynamic analysis of planar mechanisms. Cams, Gears and gear trains, Flywheels, Governors, Balancing of rigid rotors, Balancing of single and multicylinder engines, Linear vibration analysis of mechanical systems (single degree and two degrees of freedom), Critical speeds and whirling of shafts, Automatic Controls, Belts and chain drives. Hydrodynamic bearings.

#### 2. Mechanics of Solids :

Stress and strain in two dimensions. Principal stresses and strains, Mohr's construction, linear elastic materials, isotropy and anisotropy, Stress-strain relations, uniaxial loading, thermal stresses. Beams : Bending moment and shear force diagrams, bending stresses and deflection of beams, Shear stress distribution. Torsion of shafts, helical springs. Combined stresses, Thick and thin walled pressure vessels. Struts and columns, Strain energy concepts and theories of failure. Rotation discs. Shrink fits.

#### 3. Engineering Materials :

Basic concepts on structure of solids, Crystalline materials, Defects in crystalline materials, Alloys and binary phase diagrams, structure and properties of common engineering materials. Heat treatment of steels. Plastics, Ceramics and composite Materials, common applications of various materials.

#### 4. Manufacturing Science :

Merchant's force analysis, Taylor's tool life equation, machinability and machining economics, Rigid, small and flexible automation, NC, CNC. Recent machining methods- EDM, ECM and ultrasonics. Application of lasers and plasmas, analysis of forming processes. High energy rate forming. Jigs, fixtures, tools and gauges, Inspection of length, position, profile and surface finish.

#### 5. MANUFACTURING MANAGEMENT :

Production Planning and Control, Forecasting-Moving average, exponential smoothing, Operations scheduling; assembly line balancing. Product development. Breakeven analysis, Capacity planning. PERT and CPM.

Control Operations : Inventory control-ABC analysis. EOQ model. Materials requirement planning. Job design, Job standards, work measurement, Quality management-Quality control. Operations Research : Linear programming-Graphical and Simplex methods. Transportation and assignment models. Single server queuing model.

Value Engineering : Value analysis, for cost/value. Total quality management and forecasting techniques. Project management.

#### 6. ELEMENTS OF COMPUTATION :

Computer Organisation, Flow charting.

Features of Common Computer Languages-FORTRAN d Base III, Lotus 1-2-3 C and elementary programming.

#### PAPER-II

#### 1. THERMODYNAMICS :

Basic concept. Open and closed systems, Applications of Thermodynamic Laws, Gas equations, Clapeyron equation, Availability, Irreversibility and Tds relations.

#### 2. I.C. Engines, Fuels and Combustion :

Spark Ignition and compression ignition engines, Four stroke engine and Two stroke engines, mechanical, thermal and volumetric efficiency, Heat balance. Combustion process in S.I. and C.I. engines, preignition detonation in S.I. engine Diesel knock in C.I. engine. Choice of engine fuels, Octane and Cetane ratings. Alternate fuels Carburation and Fuel injection, Engine emissions and control. Solid, liquid and gaseous fuels, stoichiometric air requirements and excess air factor, fuel gas analysis, higher and lower calorific values and their measurements.

#### 3. HEAT TRANSFER, REFRIGERATION AND AIR CONDITIONING :

One and two dimensional heat conduction. Heat transfer from extended surfaces, heat transfer by forced and free convection. Heat exchangers. Fundamentals for diffusive and convective mass transfer, Radiation laws, heat exchange between black and non black surfaces, Network Analysis. Heat pump refrigeration cycles and systems, Condensers, evaporators and expansion devices and controls. Properties and choice of refrigerant, Refrigeration Systems and components, psychometrics, comfort indices, cooling load calculations, solar refrigeration.

#### 4. TURBO-MACHINES AND POWER PLANTS :

Continuity, momentum and Energy Equations. Adiabatic and Isentropic flow, Fanno lines, Rayleigh lines. Theory and design of axial flow turbines and compressors, Flow through turbo-machine blade, cascades, centrifugal compressor. Dimensional analysis and modelling. Selection of site for steam, hydro, nuclear and stand-by power plants, selection base and peak load power plants Modern High pressure, High duty boilers, Draft and dust removal equipment, Fuel and cooling water systems, heat balance, station and plant heat rates, operation and maintenance of various power plants, preventive maintenance, economics of power generation.

#### Physics

##### Paper I

#### Section-A

#### 1. Classical Mechanics

##### (a) Particle dynamics:

Centre of mass and laboratory coordinates, conservation of linear and angular momentum. The rocket equation. Rutherford scattering, Galilean transformation, inertial and non-inertial frames, rotating frames, centrifugal and Coriolis forces, Foucault pendulum.

##### (b) System of particles:

Constraints, degrees of freedom, generalised coordinates and momenta. Lagrange's equation and applications to linear harmonic oscillator, simple pendulum and central force problems. Cyclic coordinates, Hamiltonian Lagrange's equation from Hamilton's principle.

##### (c) Rigid body dynamics:

Eulerian angles, inertia tensor, principal moments of inertia. Euler's equation of motion of a rigid body, force-free motion of a rigid body. Gyroscope.

#### 2. Special Relativity, Waves & Geometrical Optics

##### (a) Special Relativity:

Michelson-Morley experiment and its implications. Lorentz transformations-length contraction, time dilation, addition of velocities, aberration and Doppler effect, mass-energy relation, simple applications to a decay process. Minkowski diagram, four dimensional momentum

vector. Covariance of equations of physics.

##### (b) Waves:

Simple harmonic motion, damped oscillation, forced oscillation and resonance. Beats. Stationary waves in a string. Pulses and wave packets. Phase and group velocities. Reflection and Refraction from Huygens' principle.

##### (c) Geometrical Optics:

Laws of reflection and refraction from Fermat's principle. Matrix method in paraxial optic-thin lens formula, nodal planes, system of two thin lenses, chromatic and spherical aberrations.

#### 3. Physical Optics:

##### (a) Interference:

Interference of light-Young's experiment, Newton's rings, interference by thin films, Michelson interferometer. Multiple beam interference and Fabry-Perot interferometer. Holography and simple applications.

##### (b) Diffraction:

Fraunhofer diffraction-single slit, double slit, diffraction grating, resolving power. Fresnel diffraction: - half-period zones and zones plates. Fresnel integrals. Application of Cornu's spiral to the analysis of diffraction at a straight edge and by a long narrow slit. Diffraction by a circular aperture and the Airy pattern.

##### (c) Polarisation and Modern Optics:

Production and detection of linearly and circularly polarised light. Double refraction, quarter wave plate. Optical activity. Principles of fibre optics attenuation; pulse dispersion in step index and parabolic index fibres; material dispersion, single mode fibres. Lasers-Einstein A and B coefficients. Ruby and He-Ne lasers. Characteristics of laser light-spatial and temporal coherence. Focussing of laser beams. Three-level scheme for laser operation.

#### Section-B

#### 4. Electricity and Magnetism:

##### (a) Electrostatics and Magnetostatics:

Laplace and Poisson equations in electrostatics and their applications. Energy of a system of charges, multiple expansion of scalar potential. Method of images and its applications. Potential and field due to a dipole, force and torque on a dipole in an external field. Dielectrics, polarisation. Solutions to boundary-value problems-conducting and dielectric spheres in a uniform electric field. Magnetic shell, uniformly magnetised sphere. Ferromagnetic materials, hysteresis, energy loss.

##### (b) Current Electricity:

Kirchhoff's laws and their applications. Biot-Savart law, Ampere's law, Faraday's law, Lenz' law. Self and mutual inductances. Mean and rms values in AC circuits. LR CR and LCR circuits- series and parallel resonance. Quality factor. Principal of transformer.

#### 5. Electromagnetic Theory & Black Body Radiation:

##### (a) Electromagnetic Theory:

Displacement current and Maxwell's equations. Wave equations in vacuum, Pointing theorem. Vector and scalar potentials. Gauge invariance, Lorentz and Coulomb gauges. Electromagnetic field tensor, covariance of Maxwell's equations. Wave equations in isotropic dielectrics, reflection and refraction at the boundary of two dielectrics. Fresnel's relations. Normal and anomalous dispersion. Rayleigh scattering.

##### (b) Blackbody radiation:

Blackbody radiation ad Planck radiation law- Stefan-Boltzmann law, Wien displacement law and Rayleigh-Jeans law. Planck mass, Planck length, Planck time, Planck temperature and Planck energy.

#### 6. Thermal and Statistical Physics

##### (a) Thermodynamics:

Laws of thermodynamics, reversible and irreversible processes, entropy. Isothermal, adiabatic, isobaric, isochoric processes and entropy change. Otto and Diesel engines, Gibbs' phase rule and chemical potential. van der Waals equation of state of a real gas, critical

constants. Maxwell-Boltzman distribution of molecular velocities, transport phenomena, equipartition and virial theorems. Dulong-Petit, Einstein, and Debye's theories of specific heat of solids. Maxwell's relations and applications. Clausius-Clapeyron equation. Adiabatic demagnetisation, Joule-Kelvin effect and liquefaction of gases.

#### (b) Statistical Physics:

Saha ionization formula. Bose-Einstein condensation. Thermodynamic behaviour of an ideal Fermi gas, Chandrasekhar limit, elementary ideas about neutron stars and pulsars. Brownian motion as a random walk, diffusion process. Concept of negative temperatures.

#### Paper-II

##### Section-A

#### 1. Quantum Mechanics I :

Wave-particle duality. Schrodinger equation and expectation values. Uncertainty principle. Solutions of the one-dimensional Schrodinger equation free particle (Gaussian wave-packet), particle in a box, particle in a finite well, linear harmonic oscillator. Reflection and transmission by a potential step and by a rectangular barrier. Use of WKB formula for the life-time calculation in the alpha-decay problem.

#### 2. Quantum Mechanics II & Atomic Physics:

##### (a) Quantum Mechanics II:

Particle in a three dimensional box, density of states, free electron theory of metals. The angular momentum problem. The hydrogen atom. The spin half problem and properties of Pauli spin matrices.

##### (b) Atomic Physics:

Stern-Gerlach experiment, electron spin, fine structure of hydrogen atom. L-S coupling, J-J coupling. Spectroscopic notation of atomic states. Zeeman effect. Frank-Condon principle and applications.

##### 3. Molecular Physics:

Elementary theory of rotational, vibrational and electronic spectra of diatomic molecules. Raman effect and molecular structure. Laser Raman spectroscopy. Importance of neutral hydrogen atom, molecular hydrogen and molecular hydrogen ion in astronomy. Fluorescence and Phosphorescence. Elementary theory and applications of NMR. Elementary ideas about Lamb shift and its significance.

##### Section-B

#### 4. Nuclear Physics:

Basic nuclear properties-size, binding energy, angular momentum, parity, magnetic moment. Semi-empirical mass formula and applications. Mass parabolas. Ground state of a deuteron magnetic moment and non-central forces. Meson theory of nuclear forces. Salient features of nuclear forces. Shell model of the nucleus-success and limitations. Violation of parity in beta decay. Gamma decay and internal conversion. Elementary ideas about Mossbauer spectroscopy. Q-value of nuclear reactions. Nuclear fission and fusion, energy production in stars. Nuclear reactors.

#### 5. Particle Physics & Solid State Physics:

##### (a) Particle Physics:

Classification of elementary particles and their interactions. Conservation laws. Quark structure of hadrons. Field quanta of electroweak and strong interactions. Elementary ideas about Unification of Forces. Physics of neutrinos.

##### (b) Solid State Physics:

Cubic crystal structure. Band theory of solids- conductors, insulators and semiconductors. Elements of superconductivity, Meissner effect, Josephson junctions and applications. Elementary ideas about high temperature superconductivity.

##### 6. Electronics :

Intrinsic and extrinsic semiconductors-

p-n-p and n-p-n transistors. Amplifiers and oscillators. Op-amps. FET, JFET and MOSFET. Digital electronics- Boolean identities, De Morgan's laws, Logic gates and truth tables., Simple logic circuits. Thermistors, solar cells. Fundamentals of microprocessors and digital computers.

#### Statistics

##### Paper-I

#### Probability :

Sample space and events, probability measure and probability space, random variable as a measurable function, distribution function of a random variable, discrete and continuous-type random variable probability mass function, probability density function, vector-valued random variable, marginal and conditional distributions, stochastic independence of events and of random variables, expectation and moments of a random variable, conditional expectation, convergence of a sequence of random variable in distribution, in probability, in p-th mean and almost everywhere, their criteria and inter-relations, Borel-Cantelli lemma, Chebyshev's and Khinchine's weak laws of large numbers, strong law of large numbers and Kolmogorov's theorems, Glivenko-Cantelli theorem, probability generating function, characteristic function, inversion theorem, Laplace transform, related uniqueness and continuity theorems, determination of distribution by its moments. Linderberg and Levy forms of central limit theorem, standard discrete and continuous probability distributions, their inter-relations and limiting cases, simple properties of finite Markov chains.

#### Statistical Inference:

Consistency, unbiasedness, efficiency, sufficiency, minimal sufficiency, completeness, ancillary statistic, factorization theorem, exponential family of distribution and its properties, uniformly minimum variance unbiased (UMVU) estimation, Rao-Blackwell and Lehmann-Scheffe theorems, Cramer-Rao inequality for single and several-parameter family of distributions, minimum variance bound estimator and its properties, modifications and extensions of Cramer-Rao inequality, Chapman-Robbins inequality, Bhattacharyya's bounds, estimation by methods of moments, maximum likelihood, least squares, minimum chi-square and modified minimum chi-square, properties of maximum likelihood and other estimators, idea of asymptotic efficiency, idea of prior and posterior distributions, Bayes estimators.

Non-randomised and randomised tests, critical function, MP tests, Neyman-Pearson lemma, UMP tests, monotone likelihood ratio, generalised Neyman-Pearson lemma, similar and unbiased tests, UMPU tests for single and several-parameter families of distributions, likelihood ratio and its large sample properties, chi-square goodness of fit test and its asymptotic distribution. Confidence bounds and its relation with tests, uniformly most accurate (UMA) and UMA unbiased confidence bounds.

Kolmogorov's test for goodness of fit and its consistency, sign test and its optimality, Wilcoxon signed-ranks test and its consistency, Kolmogorov-Smirnov two-sample test, run test, Wilcoxon-Mann-Whitney test and median test, their consistency and asymptotic normality. Wald's SPRT and its properties, OC and ASN functions, Wald's fundamental identity, sequential estimation.

#### Linear Inference and Multivariate Analysis :

Linear statistical models, theory of least squares and analysis of variance, Gauss-Markoff theory, normal equations, least squares estimates and their precision, test of significance and inter-

val estimates based on least squares theory in one-way, two-way and three-way classified data, regression analysis, linear regression, curvilinear regression and orthogonal polynomials, multiple regression, multiple and partial correlations, regression diagnostics and sensitivity analysis, calibration problems, estimation of variance and covariance components, MINQUE theory, multivariate normal distribution, Mahalanobis, D2 and Hotelling's T2 statistics and their applications and properties, discriminant analysis, canonical correlations, one-way MANOVA, principal component analysis, elements of factor analysis.

#### Sampling Theory and Design of Experiments:

An outline of fixed-population and super-population approaches, distinctive features of finite population sampling, probability sampling designs, simple random sampling with and without replacement, stratified random sampling, systematic sampling and its efficacy for structural populations, cluster sampling, two-stage and multi-stage sampling, ratio and regression, methods of estimation involving one or more auxiliary variables, two-phase sampling, probability proportional to size sampling with and without replacement, the Hansen-Hurwitz and the Horvitz-Thompson estimators, non-negative variance estimation with reference to the Horvitz-Thompson estimator, non-sampling errors, Warner's randomised response technique for sensitive characteristics.

Fixed effects model (two-way classification) random and mixed effects models (two-way classification per cell), CRD, RBD, LSD and their analyses, incomplete block designs, concepts of orthogonality and balance, BIBD, missing plot technique, factorial designs : 2n, 32 and 33, confounding in factorial experiments, split-plot and simple lattice designs.

#### PAPER-II

##### I. Industrial Statistics

Process and product control, general theory of control charts, different types of control charts for variables and attributes, X, R, s, p, np and c charts, cumulative sum chart, V-mask, single, double, multiple and sequential sampling plans for attributes, OC, ASN, AOQ and ATI curves, concepts of producer's and consumer's risks, AQL, LTPD and AOQL, sampling plans for variables, use of Dodge-Romig and Military Standard tables.

Concepts of reliability, maintainability and availability, reliability of series and parallel systems and other simple configurations, renewal density and renewal function, survival models (exponential), Weibull, lognormal, Rayleigh, and bath-tub), different types of redundancy and use of redundancy in reliability improvement, problems in life-testing, censored and truncated experiments for exponential models.

##### II. Optimization Techniques:

Different types of models in Operational Research, their construction and general methods of solution, simulation and Monte-Carlo methods, the structure and formulation of linear programming (LP) problem, simple LP model and its graphical solution, the simplex procedure, the two-phase method and the M-technique with artificial variables, the duality theory of LP and its economic interpretation, sensitivity analysis, transportation and assignment problems, rectangular games, two-person zero-sum games, methods of solution (graphical and algebraic).

Replacement of failing or deteriorating items, group and individual replacement policies, concept of scientific inventory management and analytical structure of inventory problems, simple

models with deterministic and stochastic demand with and without lead time, storage models with particular reference to dam type.

Homogeneous discrete-time Markov chains, transition probability matrix, classification of states and ergodic theorems, homogeneous continuous-time Markov chains, Poisson process, elements of queueing theory, M/M/1, M/M/K, G/M/1 and M/G/1 queues.

Solution of statistical problems on computers using well known statistical software packages like SPSS.

#### III. Quantitative Economics and Official Statistics:

Determination of trend, seasonal and cyclical components, Box-Jenkins method, tests for stationarity of series, ARIMA models and determination of orders of autoregressive and moving average components, forecasting.

Commonly used index numbers- Laspeyre's, Paasche's and Fisher's ideal index numbers, chain-base index number uses and limitations of index numbers, index number of wholesale prices, consumer price index number, index numbers of agricultural and industrial production, tests, for index numbers like proportionality test, time-reversal test, factor-reversal test, circular test and dimensional invariance test.

General linear model, ordinary least squares and generalised least squares methods of estimation, problem of multicollinearity, consequences and solutions of multicollinearity, autocorrelation and its consequences, heteroscedasticity of disturbances and its testing, test for independence of disturbances, Zellner's seemingly unrelated regression equation model and its estimation, concept of structure and model for simultaneous equations, problem of identification-rank and order conditions of identifiability, two-stage least squares method of estimation.

Present official statistical system in India relating to population, agriculture, industrial production, trade and prices, methods of collection of official statistics, their reliability and limitation and the principal publications containing such statistics, various official agencies responsible for data collection and their main functions.

#### IV. Demography and Psychometry:

Demographic data from census, registration, NSS and other surveys, and their limitation and uses, definition, construction and uses of vital rates and ratios, measures of fertility, reproduction rates, morbidity rate, standardized death rate, complete and abridged life tables, construction of life tables from vital statistics and census returns, uses of life tables, logistic and other population growth curves, fitting a logistic curve, population projection, stable population theory, uses of stable population and quasi-stable population techniques in estimation of demographic parameters, morbidity and its measurement, standard classification by cause of death, health surveys and use of hospital statistics.

Methods of standardisation of scales and tests, Z-scores, standard scores, T-scores, percentile scores, intelligence quotient and its measurement and uses, validity of test scores and its determination, use of factor analysis and path analysis in psychometry.

#### ZOOLOGY

##### PAPER-1

##### Section-A

#### 1. Non-chordata and chordata :

(a) Classification and relationship of various phyla upto sub-classes; Acoelomata and Coelomata; Protostomes and Deuterostomes, Bilateria and Radiata; Status of Protista, Parazoa, Onychophora and Hemichordata; Symmetry.

(b) Protozoa : Locomotion, nutrition, reproduction; evolution of sex;

<p>General features and life history of Paramaecium, Monocystis, Plasmodium, and Leishmania.</p> <p>(c) Porifera : Skeleton, canal system and reproduction.</p> <p>(d) Coelenterata : Polymorphism, defensive structures and their mechanism; coral reefs and their formation; metagenesis; general features and life history of Obelia and Aurelia.</p> <p>(e) Platyhelminthes : Parasitic adaptation; general features and life history of Fasciola and Taenia and their relation to man.</p> <p>(f) Nematelminthes : General features, life history and parasitic adaptation of Ascaris; nemathelminths in relation to man.</p> <p>(g) Annelida : Coelom and metamerism; modes of life in polychaetes; general features and life history of nereis (Neanthes), earthworm (Pheretima) and leach (Hirudinaria).</p> <p>(h) Arthropoda : Larval forms and parasitism in Crustacea; vision and respiration in arthropods (prawn, cockroach and scorpion); modification of mouth parts in insects (cockroach, mosquito, housefly, honey bee and butterfly); metamorphosis in insects and its hormonal regulation; social organization in insects (termites and honey bees).</p> <p>(i) Mollusca : Feeding, respiration, locomotion, shell diversity; general features and life history of Lamellidens, Pila and Sepia, torsion and detorsion in gastropods.</p> <p>(j) Echinodermata : Feeding, respiration, locomotion larval forms; general features and life history of Asterias.</p> <p>(k) Protochordata : Origin of chordates; general features and life history of Branchiostoma and Herdmania.</p> <p>(l) Pisces : Scales, respiration, locomotion, migration.</p> <p>(m) Amphibia : Origin of tetrapods; parental care, paedomorphosis.</p> <p>(n) Reptilia : Origin of reptiles; skull types; status of Sphenodon and crocodyles.</p> <p>(o) Aves : Origin of birds; flight adaptation, migration.</p> <p>(p) Mammalia : Origin of mammals; dentition; general features of egg-laying mammals, pouched-mammals, aquatic mammals and primates; endocrine glands and other hormone producing structures (pituitary, thyroid, parathyroid, adrenal, pancreas, gonads)</p>	<p>and their interrelationships.</p> <p>(q) Comparative functional anatomy of various systems of vertebrates (integument and its derivatives, endoskeleton, locomotory organs, digestive system, respiratory system, circulatory system including heart and aortic arches; urinogenital system, brain and sense organs (eye and ear).</p> <p style="text-align: center;"><b>Section- B</b></p> <p><b>1. Ecology :</b></p> <p>(a) Biosphere: Biogeochemical cycles, green-houses effect, ozone layer and its impact; ecological succession, biomes and ecotones.</p> <p>(b) Population, characteristics, population dynamics, population stabilization.</p> <p>(c) Conservation of natural resources- mineral mining, fisheries, aquaculture; forestry; grassland; wildlife (Project Tiger); sustainable production in agriculture-integrated pest management.</p> <p>(d) Environmental biodegradation; pollution and its impact on biosphere and its prevention.</p> <p><b>II. Ethology :</b></p> <p>(a) Behaviour : Sensory filtering, responsiveness, sign stimuli, learning, instinct, habituation, conditioning, imprinting.</p> <p>(b) Role of hormones in drive; role of pheromones in alarm spreading; crypsis, predator detection, predator tactics, social behaviour in insects and primates; courtship (Drosophila, 3-spine stickleback and birds).</p> <p>(c) Orientation, navigation, homing; biological rhythms; biological clock, tidal, seasonal and circadian rhythms.</p> <p>(d) Methods of studying animal behaviour.</p> <p><b>III. Economic Zoology :</b></p> <p>(a) Apiculture, sericulture, lac culture, carp culture, pearl culture, prawn culture.</p> <p>(b) Major infectious and communicable diseases (small pox, plague, malaria, tuberculosis, cholera and AIDS) their vectors, pathogens and prevention.</p> <p>(c) Cattle and livestock diseases, their pathogens (helminthes) and vectors (ticks, mites, Tabanus, Stomoxys)</p> <p>(d) Pests of sugar cane (Pyrilla perpusiella), oil seed (Achaea janata) and rice (Sitophilus oryzae).</p> <p><b>IV. Biostatistics :</b> Designing of experiments; null hypothesis; correla-</p>	<p>tion, regression, distribution and measure of central tendency, chi square, student t-test, F-test (one-way &amp; two-way F-test).</p> <p><b>V. Instrumental methods :</b></p> <p>(a) Spectrophotometry, flame photometry, Geiger-Muller counter, scintillation counting.</p> <p>(b) Electron microscopy (TEM, SEM).</p> <p style="text-align: center;"><b>PAPER-II</b></p> <p style="text-align: center;"><b>Section-A</b></p> <p><b>I. Cell Biology :</b></p> <p>(a) Structure and function of cell and its organelles(nucleus, plasma membrane, mitochondria, Golgi bodies, endoplasmic reticulum, ribosomes and lysosomes), cell division (mitosis and meiosis), mitotic spindle and mitotic apparatus, chromosome movement.</p> <p>(b) Watson-Crick model of DNA, replication of DNA, protein synthesis, transcription and transcription factors.</p> <p><b>II. Genetics</b></p> <p>(a) Gene structure and functions; genetic code.</p> <p>(b) Sex chromosomes and sex determination in Drosophilla, nematodes and man.</p> <p>(c) Mendel's laws of inheritance, recombination, linkage, linkage maps, multiple alleles, cistron concept; genetics of blood groups.</p> <p>(d) Mutations and mutagenesis : radiation and chemical.</p> <p>(e) Cloning technology, plasmids and cosmids as vectors, transgenics, transposons, DNA sequence cloning and whole animal cloning (Principles and methodology).</p> <p>(f) Regulation and gene expression in pro-and eukaryotes.</p> <p>(g) Signal transduction; pedigree-analysis; congenital diseases in man.</p> <p>(h) Human genome mapping; DNA finger-printing.</p> <p><b>III. Evolution</b></p> <p>(a) Origin of life</p> <p>(b) Natural selection, role of mutation in evolution, mimicry, variation, isolation, speciation.</p> <p>(c) Fossils and fossilization; evolution of horse, elephant and man.</p> <p>(d) Hardy-Weinberg Law, causes of change in gene frequency.</p> <p>(e) Continental drift and distribution of animals.</p> <p><b>IV. Systematics</b></p> <p>(a) Zoological nomenclature; international code; cladistics.</p> <p style="text-align: center;"><b>Section-B</b></p> <p><b>I. Biochemistry</b></p> <p>(a) Structure and role of carbohy-</p>	<p>drates, fats, lipids, proteins, amino acids, nucleic acids; saturated and unsaturated fatty acids, cholesterol.</p> <p>(b) Glycolysis and Krebs cycle, oxidation and reduction, oxidative phosphorylation; energy conservation and release, ATP, cyclic AMP-its structure and role.</p> <p>(c) Hormone classification (steroid and peptide hormones), biosynthesis and function.</p> <p>(d) Enzymes : types and mechanisms of action; immunoglobulin and immunity; vitamins and co-enzymes.</p> <p>(e) Bioenergetics.</p> <p><b>II Physiology</b> (with special reference to mammals)</p> <p>(a) Composition and constituents of blood; blood groups and Rh factor in man; coagulation, factors and mechanism of coagulation; acid-base balance, thermo regulation.</p> <p>(b) Oxygen and carbon dioxide transport; haemoglobin : constituents and role in regulation.</p> <p>(c) Nutritive requirements; role of salivary glands, liver, pancreas and intestinal glands in digestion and absorption.</p> <p>(d) Excretory products; nephron and regulation of urine formation; osmoregulation.</p> <p>(e) Types of muscles, mechanism of contraction of skeletal muscles.</p> <p>(f) Neuron, nerve impulse-its conduction and synaptic transmission; neurotransmitters.</p> <p>(g) Vision, hearing and olfaction in man.</p> <p>(h) Mechanism of hormone action.</p> <p>(i) Physiology of reproduction, role of hormones and pheromones.</p> <p><b>III. Developmental Biology</b></p> <p>(a) Differentiation from gamete to neurula stage; dedifferentiation; metaplasia, induction, morphogenesis and morphogen; fate maps of gastrulae in frog and chick; organogenesis of eye and heart, placentation in mammals.</p> <p>(b) Role of cytoplasm in and genetic control of development; cell lineage; causation of metamorphosis in frog and insects; paedogenesis and neoteny; growth, degrowth and cell death; ageing; blastogenesis; regeneration; teratogenesis; neoplasia.</p> <p>(c) Invasiveness of placenta; in vitro fertilization; embryo transfer, cloning.</p> <p>(d) Baer's law; evo-devo concept.</p>
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## APPENDIX - II

### INSTRUCTIONS TO THE CANDIDATES FOR FILLING ONLINE APPLICATIONS

Candidates are required to apply Online using the website [www.upsconline.nic.in](http://www.upsconline.nic.in).

Salient features of the system of Online Application Form are given hereunder :

- Detailed instructions for filling up Online applications are available on the above mentioned website.
- Candidates will be required to complete the Online Application Form containing two stages viz. Part-I and Part-II as per the instructions available in the above mentioned site through drop down menus.
- The candidates are required to pay a fee of Rs.100/- Rupees One Hundred only) [excepting SC/ST/ Female/Physically Handicapped candidates who are exempted from payment of fee] either by depositing the money in any branch of SBI by cash, or by using net banking facility of State Bank of India/State Bank of Bikaner & Jaipur/State Bank of Hyderabad/State Bank of Mysore/ State Bank of Patiala/State Bank of Travancore or by using any Visa/Master Credit/ Debit Card.
- Before start filling up of Online Application, a candidate must have his/her photograph and signature duly scanned in the **jpg** format in such a manner that each file should not exceed 40 KB and must not be less than 3 KB in size for the photograph and 1 KB for the signature.

- The Online applications(Part I and II) can be filled from **5th March, 2013 to 4th April, 2013 till 11.59 p.m.**, after which link will be disabled.
- Applicants should avoid submitting multiple applications. However, if due to any unavoidable circumstances, any applicant submits multiple applications then he/she must ensure that the applications with higher RID is complete in all respects.
- In case of multiple applications, the applications with higher RID shall be entertained by the Commission and fee paid against one RID shall not be adjusted against any other RID.
- The applicants must ensure that while filling their Application Form, they are providing their valid and active E-Mail IDs as the Commission may use electronic mode of communication while contacting them at different stages of examination process.
- The applicants are advised to check their emails at regular intervals and ensure that the email address ending with **@ nic.in** are directed to their inbox folder and not to the SPAM folder or any other folder.
- **Candidates are strongly advised to apply online well in time without waiting for the last date for submission of Online Applications.**

APPENDIX-III

Special Instructions to Candidates for objective type tests

**1. Articles permitted inside Examination Hall**  
Clip board or hard board (on which nothing is written), a good quality black ball pen for making responses on the Answer Sheet. Answer Sheet and sheet for rough work will be supplied by the Invigilator.

**2. Articles not permitted inside Examination Hall**  
Do not bring into the Examination Hall any article other than those specified above, e.g., books, notes, loose sheets, electronic or any other type of calculators, mathematical and drawing instruments, Log Tables, stencils of maps, slide rules, Test Booklets and rough sheets pertaining to earlier session(s), etc.

**Mobiles phones, pagers or any other communication devices are not allowed inside the premises where the examination is being conducted. Any infringement of these instructions shall entail disciplinary action including ban from future examinations.**

**Candidates are advised in their own interest not to bring any of the banned items including mobile phones/pagers to the venue of the examination, as arrangements for safekeeping cannot be assured. Candidates are advised not to bring any valuable/costly items to the Examination Halls, as safe keeping of the same cannot be assured. Commission will not be responsible for any loss in this regard.**

**Penalty for wrong Answers**

**3. THERE WILL BE PENALTY (NEGATIVE MARKING) FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.**

(i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one third (0.33)** of the marks assigned to that question will be deducted as penalty.

(ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above for that question.

(iii) If a question is left blank i.e. no answer is given by the candidate, there will be **no penalty** for that question.

**4. Unfair means strictly prohibited**

No candidate shall copy from the papers of any other candidate nor permit his papers to be copied nor give nor attempt to give nor obtain nor attempt to obtain irregular assistance of any description.

**5. Conduct in Examination Hall**

No candidate should misbehave in any manner or create disorderly scene in the Examination Hall or harass the staff employed by the Commission for the conduct of the examination. Any such misconduct will be severely penalised.

**6. Answer Sheet particulars**

(i) Write in black ball pen your Centre and subject followed by test booklet series (in bracket), subject code and roll number at the appropriate space provided on the answer sheet at the top. Also encode your booklet series (A, B, C or D, as the case may be), subject code and roll number in the circles provided for the purpose in the answer sheet. The guidelines for writing the above particulars and for encoding the above particulars are given in Annexure. In case the booklet series is not printed on the test booklet or answer sheet is un-numbered, please report immediately to the Invigilator and get the test booklet/answer sheet replaced.

(ii) All corrections and changes in writing the roll number must be initialed by the candidates as well as by the Invigilator and countersigned by the Supervisor.

(iii) Immediately after commencement of the examination please check that the test booklet supplied to you does not have any unprinted or torn or missing pages or items etc. If so, get it replaced by a complete test booklet of the same series and subject.

**7. Do not write your name or anything other than the specific items of information asked for, on the answer sheet/test booklet/sheet for rough work.**

**8. Do not fold or mutilate or damage or put any extraneous marking in the Answer Sheet. Do not write anything on the reverse of the answer sheet.**

**9. Since the answer sheets will be evaluated on computerised machines, candidates should exercise due care in handling and filling up the answer sheets. They should use black ball pen only to darken the circles. For writing in boxes also, they should use black ball pen. Since the entries made by the candidates by darkening the circles will be taken into account while evaluating the answer sheets on computerised machines, they should make these entries very carefully and accurately.**

**10. Method of marking answers**

In the "OBJECTIVE TYPE" of examination, you do not write the answers. For each question (hereinafter referred to as "Item") several suggested answers (hereinafter referred to as "Responses") are given. You have to choose one response to each item.

The question paper will be in the Form of TEST BOOKLET. The booklet will contain item bearing numbers 1, 2, 3 ..... etc. Under each item, Responses marked (a), (b), (c), (d) will be given. Your task will be to choose the correct response. If you think there is more than one correct response, then choose what you consider the best response.

In any case, for each item you are to select only one response. If you select more than one response, your response will be considered wrong. In the Answer Sheet, Serial Nos. from 1 to 160 are printed. Against each numbers, there are circles marked (a), (b), (c) and (d). After you have read each item in the Test Booklet and decided which one of the given responses is correct or the best, **you have to mark your response by**

**completely blackening with black ball pen to indicate your response.**

For example, if the correct answer to item 1 is (b), then the circle containing the letter (b) is to be completely blackened with black ball pen as shown below :-

**Example : (a) ● (c) (d)**

**11. Entries in Scannable Attendance List**

Candidates are required to fill in the relevant particulars with black ball pen only against their columns in the Scannable Attendance List, as given below:-

- i) Blacken the circle [P] under the column [Present/Absent]
- ii) Blacken the relevant circle for Test Booklet Series
- iii) Write Test Booklet Serial No.
- (iv) Write the Answer Sheet Serial No. and also blacken the corresponding circles below.
- v) Append signature in the relevant column

**12. Please read and abide by the instructions on the cover of Test Booklet. If any candidate indulges in disorderly or improper conduct, he will render himself liable for disciplinary action and/or imposition of a penalty as the Commission may deem fit.**

**ANNEXURE**

**How to fill in the Answer Sheet of objective type tests in the Examination Hall**

Please follow these instructions very carefully. You may note that since the answer sheets are to be evaluated on machine, any violation of these instructions may result in reduction of your score for which you would yourself be responsible.

Before you mark your responses on the Answer Sheet, you will have to fill in various particulars in it.

As soon as the candidate receives the Answer Sheet, he should check that it is numbered at the bottom. If it is found un-numbered he should at once get it replaced by a numbered one.

You will see from the Answer Sheet that you will have to fill in the top line, which reads thus :

Centre	Subject	S.Code	Roll Number
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If you are, say, appearing for the examination in Delhi Centre for the General Ability Test Papers\* and your Roll No. is 081276, and your test Booklet series is 'A' you should fill in thus, using black ball pen.

Centre	Subject	S.Code	Roll Number
Delhi	subject	01	081276
	Mathe-		
	matics (A)		

You should write with black ball pen the name of the centre and subject in English or Hindi.

The test Booklet Series is indicated by Alphabets A, B, C or D at the top right hand corner of the Booklet.

Write your Roll Numbers exactly as it is in your e-Admission Certificate with black ball pen in the boxes provided for this purpose. Do not omit any zero(s) which may be there.

The next step is to find out the appropriate subject code from the Time Table. Now encode the Test Booklet Series, Subject Code and the Roll Number in the circles provided for this purpose. Do the encoding with black ball pen. The name of the Centre need not be encoded.

Writing and encoding of Test Booklet Series is to be done after receiving the Test Booklet and confirming the Booklet Series from the same.

For Mathematics \* subject paper of 'A' Test Booklet Series you have to encode the subject code, which is 01. Do it thus:

Booklet Series (A)	Subject	0	1
●	⊙	●	⊙
⊙	●	⊙	●
⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙

All that is required is to blacken completely the circle marked 'A' below the Booklet Series and below the subject code blacken completely the Circles for "0" (in the first vertical column) and "1" (in the second vertical column). You should then encode the Roll No. 081276. Do it thus similarly :

Roll Numbers

0	8	1	2	7	6
●	⊙	⊙	⊙	⊙	⊙
⊙	⊙	●	⊙	⊙	⊙
⊙	⊙	⊙	●	⊙	⊙
⊙	⊙	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	●
⊙	⊙	⊙	⊙	●	⊙
⊙	●	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	⊙

**Important :** Please ensure that you have carefully encoded your subject, Test Booklet series and Roll Number.

\*This is just illustrative and may not be relevant to your Examination.

# STAFF SELECTION COMMISSION

## Combined Graduate Level Examination, 2012 - Declaration of Final result

SSC conducted CGL (Tier-I) Examination, 2012 on 01.07.2012 and 08.07.2012. Re-examination of certain candidates was held on 4.9.2012. Based on their performance in Tier-I, candidates were called for Tier-II Examination held on 3rd & 4th September, 2012. The result of Tier-II Examination for calling candidates for Interview/Skill Test was declared subsequently. Following Lists were declared:-

List-I: Candidates qualified in Tier-II for all Interview posts (other than Statistical Investigator/Compiler) - 5742 Candidates

List-II: Candidates qualified in Tier-II for the posts of Statistical Investigator/Compiler - 1443 candidates

List-III: Candidates qualified in Tier-II for all Non-Interview Posts - 19644 candidates

List-IV: Candidates qualified in Tier-II for post of Tax Assistant - 27640 candidates

2. (i) Computer Proficiency Test (CPT) and Data Entry Skill Test (DEST) are of qualifying nature. CPT consists of 3 modules. Module I is the Data Entry Skill Test. Module II and III of CPT are on Spreadsheets and Power Point respectively, and each paper had 100 marks.

2. (ii) **Fixation of cut-off in Module I for evaluation of CPT Module II & III**

The Commission decided to fix Cutoff of upto 5% mistakes for UR and 10% mistakes for other categories in Module I (same as DEST) for qualifying candidates for evaluation of Module II & III of CPT. Category-wise number of candidates qualified for evaluation of CPT Module-II & Module III are given below:-

	SC	ST	OBC	EXS	OH	HH	VH	UR	TOTAL
CUT-OFF	7%	15%	7%	--	15%	15%	15%	5%	
CANDIDATES AVAILABLE	292	119	550	--	23	14	5	612	1615

2. (iii) Out of 1615 candidates who qualified for Module II/ III of CPT, Category-wise number of candidates qualified in CPT (after applying the cut off of 120 marks (60%) for UR and 100 marks (50%) for remaining categories on the total marks in Module II + III) is given below :-

	SC	ST	OBC	EXS	OH	HH	VH	UR	TOTAL
CUT-OFF	100	100	100	100	100	100	100	120	
CANDIDATES AVAILABLE	199	75	347	1	12	7	3	399	1043

3. Total 14914 candidates appeared in DEST. As per verified data sent by Regional Offices, 24 OH candidates have been exempted in DEST.

Select List for post of Tax Assistant : Commission has decided to apply cut-off of 5% for UR and 7% in mistakes for all reserved categories in DEST for post of Tax Assistant in CBDT and CBEC. Category-wise number of candidates available after applying the cut-off is given below:-

	SC	ST	OBC	EXS	OH	HH	VH	UR	TOTAL
CUT-OFF	7%	7%	7%	7%	7%	7%	7%	5%	
CANDIDATES AVAILABLE	1004	3645	2152	423	106	30	32	2992	7103

**Reserve List for post of Tax Assistant :** Commission has decided to apply cut-off of 10% for UR and 15% in mistakes for all reserved categories in DEST for post of Tax Assistant in CBDT and CBEC for consideration in Reserve List.

4. The description of vacancy preference codes 'G' and 'H' were corrected vide corrigendum to the notice of examination no. 3/20/2011 P&P. Some vacancies of Other departments with Rs 4600 GP were also communicated. Hence, Commission decided to club the vacancies communicated for G and H together under preference code H for allocation purpose. Further allocation of the candidates selected against post code H to various departments will be made in due course. Following vacancies have been considered under option 'H':-

(i) Vacancies of Option G

(ii) Vacancies of Option H in following Departments/organizations :-

- Election Commission of India
- Ministry of Parliamentary Affairs
- Central Passport Organisation
- Coast Guard
- Directorate of Enforcement
- Bureau of Police Research & Development
- Directorate of Forensic Sciences (MHA)

Further, since vacancies communicated by CBDT/CBEC were not state-wise but zone-wise, allocation has been made as per the States falling under the respective Zones of the user department. Vacancies of states falling under a particular zone have been clubbed together and shown against one state.

5. There are three different merit criteria:-

- Interview posts (other than Statistical Investigator) - Tier I + Tier II (Paper I + Paper II) + Interview marks
- Statistical Investigator post - Tier I + Tier II (Paper I + Paper II + paper III) + Interview marks
- Non-interview posts - Tier I + Tier II (Paper I + Paper II)

There was separate cut-off in Tier I for post of Stat. Investigator/Tax Assistant. Similarly, there were separate cut-off in Tier I +Tier II marks for the post of Stat. Investigator/Tax Assistant. While allocating posts and state of posting to eligible candidates, merit-cum-preference criteria has been adopted. First the preference of post has been taken into account and then within the post, preference for states has been taken into account for allocation. If a candidate has exercised limited options for state for a post (where state wise vacancies are available) and has not been allocated as no vacancies are available or remaining in the opted states, he has been considered for his next post option and within the post for his state options and so on.

The allocation has been made sequentially for the following four lists -

- List I : Interview posts (other than Statistical Investigator) - Option A to P
- List II : Statistical Investigator Grade II - Option Q
- List III : Non-interview posts Select List - Option R to Z
- List IV : Non-interview posts Reserve List - Option R to Z

While making allocation for List I, all candidates who had opted for posts in list II/III as first option were ignored. While making allocation for List II, all candidates allocated in list I were not considered and all candidates who had given higher preference to any non-interview posts under List III than option in List II were ignored. While making allocation for List III, candidates already selected in List I and II were not considered. The candidates who did not attend document verification were not considered for List III. While making allocation for List IV i.e. Reserve List for non-interview posts, following candidates were considered against remaining vacancies with their preferences replaced with preferences in default order i.e. Post preference - "RSTUVWXYZ" and State preference - "ABCDEFGHIJKLMNORSTUVWXYZ\$#" :-

- Candidates who were not allocated in Select List.
- Candidates who did not appear for document verification as per the information sent by Regional Offices
- Considered as qualified in DEST at relaxed cut-off of 10% for UR and

15% for Other categories

No vacancies were reported for the posts of Auditor in CGA and others i.e. option T and Compiler i.e. option Z.

6. Category-wise break-up of the candidates for different posts selected against the vacancies reported by the User departments and highest and lowest marks secured by candidates selected against each post/ state is as below (For the posts where state allocations have been made, rows corresponding to post/ state/ category with nil reported vacancies have not been included in the tables). **For consideration against the interview posts (Post preference A to Q) a cut off of minimum 25 marks for UR and 20 marks for other categories in interview has been applied by the Commission. In Select List of non-interview posts, candidates who did not appear for document verification have not been considered.-**

**List-I (Option A to P) -Select List for All Interview posts (Except Statistical Investigator)**

Category	SC	ST	ExS	OH	HH	OBC	VH	UR	Total
VACANCIES	708	362	53	69	56	1277	22	2561	4908
CANDIDATES RECOMMENDED	647	322	46	58	36	1208	6	2001	4178
UNFILLED VACANCIES	61	40	7	11	20	69	16	560	730

Post wise, state wise and category wise details of Vacancies, selected candidates in List I along with Highest and Lowest Marks secured by first and last selected candidate against each post preference/ state / category is as following ( Rows pertaining to posts with 0 reported vacancies are not included. In case of posts where state allocation has not been made, state\_code is kept blank) :

preference	state_code	category	Vacancy	Filled	Lowest Marks	Highest Marks
A	-	1	112	109	314.5	397.5
A	-	2	56	26	309.25	402.25
A	-	4	8	8	318.25	419.75
A	-	5	7	2	242.5	348.25
A	-	6	201	146	345.5	427
A	-	7	7	2	324	338.75
A	-	9	375	212	382.25	490.25
B	-	6	1	1	510.5	510.5
C	-	1	12	12	378	412.5
C	-	2	6	6	366.25	417.25
C	-	6	17	17	418.5	450
C	-	9	23	23	453	500.25
D	-	1	6	6	396.5	473.75
D	-	2	2	2	363.5	388.25
D	-	6	14	14	414.75	439.75
D	-	9	21	21	447.25	522.5
E	-	1	7	7	383.25	397
E	-	2	4	4	377.25	388.5
E	-	4	1	1	433	433
E	-	5	1	1	306	306
E	-	6	22	22	416.25	449.25
E	-	7	1	1	358.75	358.75
E	-	9	18	18	457.25	510
F	-	1	7	7	375	382.75
F	-	2	4	4	354	360.5
F	-	6	8	8	412.75	425.5
F	-	9	24	24	444	455.25
H	-	1	7	7	373	393.25
H	-	2	6	6	349.25	360.25
H	-	4	1	1	418.5	418.5
H	-	5	1	1	303	303
H	-	6	31	31	402.5	429.25
H	-	9	53	53	429.75	450.25
I	\$	1	2	2	431.75	437
I	\$	2	1	1	379.5	379.5
I	\$	3	2	2	398	405.75
I	\$	4	1	1	390.75	390.75
I	\$	6	2	2	442.5	459.75
I	\$	9	12	12	456	468.5
I	A	1	1	1	413	413
I	A	2	2	2	377.75	383
I	A	6	2	2	456.25	466.75
I	A	9	3	3	467	469.25
I	C	9	5	5	450	454.75
I	D	4	1	1	423.5	423.5
I	D	6	1	1	467.25	467.25
I	D	9	4	4	470.25	482.25
I	F	1	3	3	436.5	468.75
I	F	2	2	2	427.5	443.5
I	F	3	3	3	425.25	447.75
I	F	4	1	1	460.75	460.75
I	F	6	18	18	449	478
I	F	9	15	15	478.25	508
I	G	1	3	3	400	401
I	G	3	3	3	396.5	405.75
I	G	4	1	1	405	405
I	G	6	9	9	436.25	447
I	G	9	23	23	458.25	469
I	L	1	4	4	371.25	375.75
I	L	2	1	1	378.25	378.25
I	L	3	1	1	378	378
I	L	6	3	3	430.75	434.25
I	L	9	11	11	442.25	461
I	M	1	2	2	394.25	401

Continued

I	M	2	1	1	382.5	382.5	J	T	5	1	1	275	275
I	M	3	3	3	378.25	389.25	J	T	6	13	13	393.5	411.5
I	M	4	1	1	378.75	378.75	J	T	7	1	0	-	-
I	M	6	5	5	438.75	448	J	T	9	27	27	402.25	434.75
I	M	9	10	10	455	460.75	J	X	1	102	51	313.5	365.5
I	N	1	41	41	372.5	417.25	J	X	2	65	58	311.25	346.75
I	N	2	38	38	366.5	416.75	J	X	4	10	0	-	-
I	N	3	23	23	365	397.5	J	X	5	10	1	257.5	257.5
I	N	4	12	12	344	374.5	J	X	6	174	174	368.5	408.5
I	N	5	1	1	342.5	342.5	J	X	9	341	19	387.25	429
I	N	6	20	20	431.5	464.5	J	Z	1	14	14	367.75	387
I	N	9	122	122	442	469	J	Z	2	7	7	350.5	364.25
I	O	4	1	1	383	383	J	Z	4	1	1	367.75	367.75
I	O	5	1	1	298.25	298.25	J	Z	6	26	26	418.25	429
I	O	6	3	3	442.25	442.25	J	Z	9	48	48	431.5	459.5
I	T	1	1	1	430	430	K	-	1	39	39	357.25	397
I	T	2	1	1	371.75	371.75	K	-	2	15	15	365	406.75
I	T	6	1	1	438.5	438.5	K	-	4	1	1	404	404
I	T	9	2	2	457.75	459.75	K	-	5	1	1	342.25	342.25
I	U	1	4	4	412.5	420.75	K	-	6	89	89	401.25	492.25
I	U	2	2	2	409.25	415	K	-	9	204	204	418.75	501.5
I	U	3	3	3	397	409.5	L	-	1	1	1	458	458
I	U	4	1	1	440.5	440.5	L	-	9	17	17	475.25	514.75
I	U	6	7	7	447	465.75	M	\$	1	1	1	379	379
I	U	9	14	14	470.75	511.5	M	\$	2	1	1	361	361
I	V	1	2	2	402.75	411.5	M	\$	6	1	1	455.5	455.5
I	V	3	1	1	404.5	404.5	M	\$	9	1	1	439.5	439.5
I	V	4	1	1	419.25	419.25	M	A	1	1	1	367	367
I	V	6	2	2	459.5	459.5	M	A	6	1	1	450.5	450.5
I	V	9	5	5	470.25	473	M	A	9	2	2	459.25	464
I	X	1	15	15	367.5	384.25	M	E	1	1	1	365.25	365.25
I	X	2	30	30	354.25	376.75	M	E	6	1	1	426.25	426.25
I	X	3	1	1	401.5	401.5	M	E	9	2	2	434.75	435.75
I	X	4	1	1	350	350	M	F	1	1	1	405.75	405.75
I	X	6	1	1	435.25	435.25	M	F	2	1	1	401.5	401.5
I	X	9	42	42	437.5	454.25	M	F	6	1	1	446.25	446.25
I	Z	1	3	3	415.25	420.75	M	F	9	4	4	456.75	485
I	Z	2	1	1	414.75	414.75	M	G	6	1	1	427	427
I	Z	3	2	2	399.25	402	M	G	9	3	3	441.5	453.5
I	Z	6	13	13	442.75	468.5	M	H	6	1	1	425	425
I	Z	7	1	1	327.75	327.75	M	H	9	1	1	439.25	439.25
I	Z	9	9	9	469.75	513.5	M	I	1	1	1	381	381
J	\$	1	22	22	349.5	389.75	M	I	6	1	1	427	427
J	\$	2	14	14	340.5	361.25	M	I	9	2	2	443.25	450
J	\$	4	5	5	333	341.5	M	J	6	1	1	424.75	424.75
J	\$	5	10	10	239.5	281.75	M	J	9	3	3	432.5	439.75
J	\$	6	125	125	386.25	423	M	K	1	1	1	366.5	366.5
J	\$	7	9	0	-	-	M	K	6	1	1	432.25	432.25
J	\$	9	92	92	410	450.5	M	K	9	2	2	437.5	439.75
J	A	1	26	26	341.75	395.75	M	L	6	1	1	418.5	418.5
J	A	2	5	5	345.25	380.25	M	L	9	2	2	433.25	439.75
J	A	4	2	1	331.5	331.5	M	M	1	1	1	364	364
J	A	5	2	0	-	-	M	M	6	1	1	424.5	424.5
J	A	6	48	48	383	423.25	M	M	9	2	2	434.5	436
J	A	9	44	44	404	441.5	M	N	2	1	1	378.75	378.75
J	F	1	4	4	399.25	409.25	M	N	6	1	1	427.75	427.75
J	F	2	2	2	371	400	M	N	9	1	1	439.75	439.75
J	F	4	1	1	386.25	386.25	M	O	1	2	2	372	377
J	F	6	8	8	442	458.75	M	O	6	2	2	426.5	436.75
J	F	9	15	15	458.75	485.25	M	O	9	3	3	450.75	471
J	G	1	87	87	346.75	399.25	M	Q	1	1	1	363.75	363.75
J	G	2	4	4	363.25	372	M	Q	2	1	1	359.5	359.5
J	G	4	9	9	330.25	390.5	M	Q	6	1	1	417.25	417.25
J	G	5	9	9	230.75	290	M	Q	9	1	1	431.5	431.5
J	G	6	108	108	392.5	428.75	M	T	6	1	1	435	435
J	G	9	382	382	407.5	460.75	M	T	9	1	1	435.25	435.25
J	L	6	11	11	381.75	390.5	M	U	6	1	1	432	432
J	L	7	1	0	-	-	M	U	9	2	2	456.5	463.25
J	L	9	31	31	379.5	429	M	V	9	1	1	455.75	455.75
J	M	1	44	44	335.75	366.5	M	X	1	1	1	364.5	364.5
J	M	2	15	15	341.5	348.5	M	X	6	2	2	418.5	420.25
J	M	5	4	1	283.5	283.5	M	X	9	4	4	432.25	436.75
J	M	6	82	82	379.75	405.25	M	Y	1	1	1	380.5	380.5
J	M	9	162	112	378.25	437.5	M	Y	6	1	1	443.75	443.75
J	N	1	57	57	344	396.5	M	Y	9	2	2	445.75	451.5
J	N	2	25	25	346.5	361.75	M	Z	9	1	1	485.5	485.5
J	N	4	6	6	307.25	328.75	N	O	1	10	10	360.75	458
J	N	5	4	4	258.75	309.25	N	O	2	2	2	348.25	366.25
J	N	6	101	101	388	414.75	N	O	6	6	6	406.75	421.25
J	N	9	175	175	405.25	456.25	N	O	9	21	21	429.5	469.25
J	O	1	6	6	364.25	385	O	\$	1	5	5	338.5	369.5
J	O	2	8	8	351	362.25	O	\$	2	1	1	337	337
J	O	5	2	2	334.25	334.75	O	\$	6	3	3	396.25	399.5
J	O	6	9	9	415	418	O	\$	9	4	4	406	445.25
J	O	7	2	2	313.25	326.5	O	A	1	2	2	339.5	366.5
J	O	9	16	16	430	449.25	O	A	2	1	1	336.25	336.25
J	Q	1	5	5	346.5	368	O	A	6	4	4	381.75	387.5
J	Q	2	7	7	344.25	361	O	A	9	6	6	389	405
J	Q	5	1	1	306.5	306.5	O	B	1	1	1	341.75	341.75
J	Q	6	11	11	384.75	400.25	O	B	6	1	1	382	382
J	Q	9	23	23	403	434	O	B	9	1	1	402.75	402.75
J	T	1	10	10	344	358.75	O	C	1	1	1	333.75	333.75
J	T	2	11	11	331.5	341.25	O	C	6	1	1	382.5	382.5

O	C	9	2	1	404.5	404.5
O	D	2	1	1	338.75	338.75
O	D	6	1	1	401	401
O	D	9	3	3	415.5	417.25
O	F	2	1	1	343.25	343.25
O	F	9	1	1	428.5	428.5
O	G	1	1	1	342.25	342.25
O	G	2	1	1	340.75	340.75
O	G	6	2	2	394.25	395.25
O	G	9	4	4	410.75	414.5
O	H	1	1	1	339	339
O	H	2	1	1	339.75	339.75
O	H	6	2	2	380.75	383.75
O	H	9	1	1	412.5	412.5
O	I	1	1	1	342.25	342.25
O	I	9	1	1	417	417
O	J	6	1	1	388.5	388.5
O	L	1	1	1	335.75	335.75
O	L	2	1	1	332.25	332.25
O	L	9	2	0	-	-
O	M	1	1	1	335	335
O	M	2	1	1	335.5	335.5
O	M	6	3	3	381.75	390.75
O	M	9	5	5	396.5	415.75
O	O	1	1	1	356.75	356.75
O	O	6	1	1	400	400
O	O	9	4	4	416	422.75
O	T	6	2	2	383.5	384.75
O	T	9	2	2	405.75	408.5
O	U	1	3	3	347.75	362.25
O	U	6	1	1	396.5	396.5
O	U	9	5	5	417.75	444.5
O	Z	1	1	1	376.75	376.75
O	Z	6	2	2	401.25	412.25
O	Z	9	5	5	422	459.25
P	N	1	8	8	339.5	352
P	N	2	6	6	328.5	343.75
P	N	3	8	1	362.5	362.5
P	N	4	3	3	324.5	350
P	N	6	23	23	382.25	413.75
P	N	9	38	38	404.75	432.25
P	U	1	3	3	354.25	382.25
P	U	2	4	4	342.25	347
P	U	3	3	3	388.25	400.25
P	U	6	4	4	413.25	420.75
P	U	9	26	26	418.75	457

**Note : Explanation of Post preference codes -****A : Assistant in CSS**

Qualifying in CPT is mandatory for Option A. No exemption in CPT has been granted.

**B : Assistant in CVC****C : Assistant in Intelligence Bureau****D : Assistant in Ministry of Railways****E: Assistant in Min. of External Affairs****F: Assistant (Cypher) in Min. of External Affairs****G: Assistant in Ministry of Defence****H: Assistant in other Ministries/Department/Organisations including AFHQ**

Following vacancies have been considered under option 'H':-

(i) Vacancies of Option G

(ii) Vacancies of Option H in following Departments/organizations :-

(i) Election Commission of India

(ii) Ministry of Parliamentary Affairs

(iii) Central Passport Organisation

(iv) Coast Guard

(v) Directorate of Enforcement

(vi) Bureau of Police Research &amp; Development

(vii) Directorate of Forensic Sciences (MHA)

**I: Inspector of Income Tax**

For Option I, as the vacancies were communicated zone wise by the user department, vacancies in some States were clubbed together and considered under one single State Code as under :-

S. No.	State Code	State code under which considered
1	B, Q, P, R, S, W, C	C
2	K, D	D
3	E, O	O
4	H, M	M
5	I, V	V
6	J, U	U
7	Y, Z	Z
8	#, \$	\$

**J : Inspector (Central Excise)**

For Option J, as the vacancies were communicated zone wise by the user department, vacancies in some States were clubbed together and considered under one single State Code as under :-

S. No.	State Code	State code under which considered
1	E, O	O
2	B, C, P, R, S, W, Q	Q
3	U, J, F	F
4	#, \$	\$

**K: Inspector (Preventive Officer)****L: Inspector (Examiner)****M: Assistant Enforcement Officer****N: Sub Inspector, CBI****O: Inspector of Posts****P: Divisional Accountant, CAG****List-II (Option Q) (Select List for Interview post - Statistical Investigator Grade II)**

Category	SC	ST	OBC	UR	Total
VACANCIES	105	53	189	353	700
CANDIDATES RECOMMENDED	67	31	162	203	463
UNFILLED VACANCIES	38	22	27	150	237

Post wise, state wise and category wise details of Vacancies, selected candidates in List II along with Highest and Lowest Marks secured by first and last selected candidate against each state / category is as following ( Rows pertaining to posts with 0 reported vacancies are not included) :

preference	state_code	category	Vacancy	Filled	Lowest Marks	Highest Marks
Q	#	1	1	1	308	308
Q	#	6	1	1	364	364
Q	#	9	3	0	-	-
Q	\$	1	3	3	361.25	429
Q	\$	2	2	2	330.25	335.25
Q	\$	6	5	5	379.75	390.5
Q	\$	9	8	8	431.25	522.75
Q	A	1	11	1	359	359
Q	A	2	5	2	301.5	306.25
Q	A	6	19	18	343.5	450.5
Q	A	9	35	13	379.25	452.75
Q	C	1	2	1	328	328
Q	C	2	1	1	344.5	344.5
Q	C	6	2	2	375.25	386.25
Q	C	9	5	2	378.75	423.25
Q	D	1	3	3	320.25	332.5
Q	D	2	2	0	-	-
Q	D	6	5	5	392.75	399.75
Q	D	9	10	10	400.25	428.5
Q	E	1	2	1	306.75	306.75
Q	E	2	1	1	324.5	324.5
Q	E	6	4	4	365.75	386.25
Q	E	9	8	1	379.5	379.5
Q	F	1	10	10	346.75	388.75
Q	F	2	5	5	332.5	361.25
Q	F	6	19	19	378.5	400
Q	F	9	36	36	412.75	477
Q	G	1	8	8	324	339.25
Q	G	2	4	4	319.5	324.5
Q	G	6	14	14	362.75	376
Q	G	9	24	24	376.75	422.75
Q	H	6	1	1	383.25	383.25
Q	H	9	2	2	405	405.75
Q	I	1	1	1	340	340
Q	I	6	1	1	373.75	373.75
Q	I	9	3	3	407.5	412
Q	J	1	6	3	308	326.75
Q	J	2	3	1	292.5	292.5
Q	J	6	11	7	341.5	364.75
Q	J	9	20	5	386.5	395
Q	K	1	1	1	341	341
Q	K	6	3	3	390.75	392.25
Q	K	9	6	6	391.5	414
Q	L	1	2	0	-	-
Q	L	2	1	0	-	-
Q	L	6	4	4	351	395.25
Q	L	9	9	7	378.5	444.5
Q	M	1	8	0	-	-
Q	M	2	4	2	313	314.25
Q	M	6	14	14	342.75	387.5
Q	M	9	24	1	387	387
Q	N	1	12	10	302	330.75
Q	N	2	6	1	313.5	313.5
Q	N	6	22	22	352.25	377.25
Q	N	9	40	14	370	408.75
Q	O	1	9	9	314.25	370.25
Q	O	2	5	5	295.25	316.5
Q	O	6	16	16	369.5	391
Q	O	9	30	24	370	412
Q	Q	9	2	1	405	405
Q	S	6	1	1	373.25	373.25
Q	S	9	2	0	-	-
Q	T	1	2	2	340.5	351
Q	T	2	1	1	319.25	319.25
Q	T	6	3	3	368	377.5
Q	T	9	5	5	391.25	419.75
Q	U	1	3	3	337.5	343
Q	U	2	2	2	317.25	320
Q	U	6	6	6	372.75	386.25
Q	U	9	11	11	412.25	475.5
Q	V	1	3	3	339.5	379.25
Q	V	2	2	2	349	351.5
Q	V	6	5	5	372.25	467
Q	V	9	10	10	408	489.5
Q	W	9	1	0	-	-
Q	X	1	12	1	304.5	304.5
Q	X	2	6	1	328.25	328.25
Q	X	6	22	0	-	-
Q	X	9	40	1	390.5	390.5
Q	Y	1	1	1	337.5	337.5
Q	Y	6	2	2	380.5	402.5
Q	Y	9	3	3	412.75	446
Q	Z	1	5	5	341.5	355
Q	Z	2	3	1	313.5	313.5
Q	Z	6	9	9	385.25	396.5
Q	Z	9	16	16	422	488.75



List-III (Option R to Z) (Select List for all Non-Interview posts)  
In Select List, candidates who did not appear for document verification have not been considered.

Category	SC	ST	ExS	OH	HH	OBC	VH	UR	Total
VACANCIES	1876	1115	1059	181	141	3197	38	7023	13211
CANDIDATES RECOMMENDED	1172	608	818	161	77	2827	26	3853	8460
UNFILLED VACANCIES	704	507	241	20	64	370	12	3170	4751

Post wise, state wise and category wise details of Vacancies, selected candidates in List II along with Highest and Lowest Marks secured by first and last selected candidate against each state / category is as following ( Rows pertaining to posts with 0 reported vacancies are not included) :

preference	state_code	category	Vacancy	Filled	Lowest Marks	Highest Marks
R	\$	1	54	54	265	316.75
R	\$	2	27	27	256.25	287.5
R	\$	3	36	36	253	328
R	\$	4	5	5	259	273.25
R	\$	5	5	5	124.75	156.75
R	\$	6	99	99	308.75	331.5
R	\$	9	180	180	326.5	380
R	A	1	38	38	261	362.5
R	A	2	19	19	255.75	273.75
R	A	3	25	25	236	318.75
R	A	4	4	4	255.75	273.5
R	A	5	3	3	141.5	171
R	A	6	68	68	304	343.75
R	A	9	125	125	323	347.75
R	B	1	6	6	269	275
R	B	2	3	3	265.5	270.75
R	B	3	4	4	226	230.25
R	B	4	1	1	253.75	253.75
R	B	6	11	11	303.25	307
R	B	9	20	20	321.5	332.25
R	C	1	19	19	259.5	275
R	C	2	9	9	268.75	280.75
R	C	3	12	12	225.75	245.25
R	C	4	2	2	253.5	254.5
R	C	5	2	0	-	-
R	C	6	34	34	301.75	311.25
R	C	9	63	63	318.5	337.75
R	D	1	38	38	263.75	288.5
R	D	2	19	19	254.25	276.25
R	D	3	25	25	258.5	310.75
R	D	4	4	4	268	314
R	D	5	3	3	165	184
R	D	6	67	67	318.25	352.25
R	D	9	126	126	334	386.75
R	E	1	15	15	263	278.75
R	E	2	7	7	259.25	269.25
R	E	3	10	10	235.25	267.75
R	E	4	2	2	256.75	258.25
R	E	5	1	1	131	131
R	E	6	27	27	308.25	318.5
R	E	9	51	51	325.75	339.25
R	F	1	22	22	293	324.5
R	F	2	11	11	280.25	291
R	F	3	15	15	289.75	309.5
R	F	4	3	3	271.5	324.25
R	F	5	2	2	140.75	147.75
R	F	6	40	40	327.75	359.5
R	F	9	77	77	351.25	424
R	G	1	37	37	272	299.25
R	G	2	19	19	274.25	280.25
R	G	3	25	25	244.5	323.25
R	G	4	4	4	262.25	263.5
R	G	5	3	2	123.5	128.25
R	G	6	68	68	311.75	341.75
R	G	9	126	126	334.5	349
R	H	1	1	1	277	277
R	H	2	1	1	269	269
R	H	3	1	1	283	283
R	H	6	3	3	319.5	319.75
R	H	9	5	5	340.25	347.25
R	I	1	11	11	277	280.5
R	I	2	6	6	269.25	271.75
R	I	3	8	8	253.5	283.25
R	I	4	2	2	262	264.5
R	I	5	1	1	134.5	134.5
R	I	6	20	20	314.25	317.25
R	I	9	38	38	341	348.75
R	J	1	15	15	266.75	276.75
R	J	2	7	7	263.25	270
R	J	3	10	10	228.75	239.5
R	J	4	2	2	257.5	262
R	J	5	1	0	-	-
R	J	6	27	27	304.75	314
R	J	9	51	51	326	340
R	K	1	18	18	261.25	277
R	K	2	9	9	255.25	270.25
R	K	3	14	14	246.75	321
R	K	4	2	2	259.5	264.75
R	K	5	2	2	156	188.5
R	K	6	33	33	315.25	327.75
R	K	9	60	60	330	358

R	L	1	23	23	258	266.75
R	L	2	11	11	255	264.75
R	L	3	15	15	239.75	288.25
R	L	4	2	2	251.75	253
R	L	5	3	1	143	143
R	L	6	40	40	302	317.5
R	L	9	76	76	320.75	345.75
R	M	1	30	30	261.25	275.75
R	M	2	15	15	255.5	265
R	M	3	20	20	232.75	299.5
R	M	4	3	3	252.75	259.75
R	M	5	3	3	123.5	132.75
R	M	6	54	54	303.5	313.25
R	M	9	101	101	323.25	344.25
R	N	1	60	60	267.75	326.75
R	N	2	30	30	266	280.25
R	N	3	40	40	230.75	288.25
R	N	4	6	6	258	269.75
R	N	5	6	3	135	160.75
R	N	6	108	108	306	325
R	N	9	202	202	327.25	348.25
R	O	1	33	33	270.75	292.75
R	O	2	16	16	270.25	280
R	O	3	22	22	240.5	277.75
R	O	4	3	3	258	262
R	O	5	3	3	132.25	184.75
R	O	6	61	61	312	368.75
R	O	9	115	115	333	364.75
R	P	1	4	4	269.25	284.5
R	P	2	2	2	281	281
R	P	3	2	2	225.75	226.75
R	P	5	1	1	166.25	166.25
R	P	6	6	6	302.25	342.75
R	P	9	13	13	319.75	347
R	R	1	4	4	260	269.5
R	R	2	2	2	268	273.5
R	R	3	2	2	231.5	268.5
R	R	5	1	0	-	-
R	R	6	6	6	301.75	315.75
R	R	9	13	13	318.5	334.5
R	S	1	3	3	257.75	262
R	S	2	2	2	281	281.75
R	S	3	2	2	225.5	225.75
R	S	5	1	1	140	140
R	S	6	5	5	301.5	304.25
R	S	9	10	10	318.25	321.5
R	T	1	26	26	258.75	264.5
R	T	2	13	13	252.25	256
R	T	3	17	17	245.75	296.5
R	T	4	2	2	251	255.25
R	T	5	3	3	140.5	177.5
R	T	6	46	46	306.75	320.75
R	T	9	85	85	320.75	351.25
R	U	1	26	26	281	292.5
R	U	2	13	13	273.75	283.75
R	U	3	17	17	264.25	303.25
R	U	4	3	3	266	280
R	U	5	2	1	123	123
R	U	6	47	47	317.25	343
R	U	9	89	89	345.25	389.5
R	V	1	22	22	279	299
R	V	2	11	11	283.75	318.25
R	V	3	15	15	257	290
R	V	4	2	2	271.5	291.5
R	V	5	3	3	135	163
R	V	6	40	40	318	341.5
R	V	9	77	77	342	381.75
R	W	1	5	5	258.75	263
R	W	2	3	3	262.5	264.75
R	W	3	3	3	225.25	231.25
R	W	5	1	0	-	-
R	W	6	7	7	301.5	306.75
R	W	9	15	15	318	327.75
R	X	1	30	30	257.25	271.5
R	X	2	15	15	252.25	262.75
R	X	3	20	20	228	285.25
R	X	4	3	3	252.75	255
R	X	5	3	2	128.75	184.25
R	X	6	54	54	301.25	313.25
R	X	9	101	101	318.5	349.75
R	Y	1	15	15	279.75	291
R	Y	2	8	8	272.75	284
R	Y	3	10	10	271.25	291.75
R	Y	4	1	1	271	271
R	Y	5	2	2	166.25	171.75
R	Y	6	27	27	317.25	326.25
R	Y	9	50	50	343.75	358.5
R	Z	1	7	7	290.75	296.75
R	Z	2	3	3	270.5	273.75
R	Z	3	5	5	296.5	321
R	Z	4	1	1	294.25	294.25
R	Z	5	1	1	216.25	216.25

R	Z	6	14	14	326.75	340.25	S	V	3	2	2	242.25	267.75
R	Z	9	26	26	350.25	370.25	S	V	6	1	1		
S	#	1	4	4	253	258.25	S	V	9	4	4	337.5	365.25
S	#	2	2	2	243	244.5	S	W	1	2	2	256.25	256.75
S	#	3	1	1	222.5	222.5	S	W	6	1	1	297.5	297.5
S	#	6	5	5	296.5	300.25	S	W	9	1	1	316.75	316.75
S	#	9	13	2	314	314	S	X	1	4	4	253	254.25
S	\$	1	2	2	269.5	275.5	S	X	3	1	1	225.5	225.5
S	\$	2	13	13	246.25	253.25	S	X	6	1	1	*	*
S	\$	3	5	5	250.75	294.75	S	Y	1	2	2	266.5	266.5
S	\$	6	5	5	305.25	313	S	Y	3	3	3	228.75	232.25
S	\$	9	19	19	317.5	359.5	S	Y	6	6	6	300.25	318.25
S	A	1	15	15	253	257	S	Y	9	13	13	319.5	354
S	A	2	6	6	244.25	251.25	S	Z	1	46	46	256.75	269.75
S	A	3	17	17	222.25	259.25	S	Z	2	22	22	246.75	261.25
S	A	6	24	24	299	301	S	Z	3	17	17	227	268.25
S	A	9	49	44	313.75	335.25	S	Z	4	2	2	251.5	255
S	B	1	2	2	253.75	271.5	S	Z	6	57	57	300.25	323.25
S	B	2	1	1	253.75	253.75	S	Z	9	92	92	317.25	350.75
S	B	3	2	2	215.25	215.5	U	\$	1	12	12	252	282.75
S	B	6	2	2			U	\$	2	6	5	242	243.75
S	C	1	9	9	254	265.5	U	\$	3	8	8	233	248.75
S	C	2	2	2	261.75	274.5	U	\$	4	1	1	244	244
S	C	3	2	2	225.75	227.5	U	\$	5	2	2	175	176.25
S	C	4	1	1	247.5	247.5	U	\$	6	22	22	296.25	312
S	C	5	1	0	-	-	U	\$	9	40	24	313.75	356
S	C	6	5	5	299.25	301.25	U	A	1	15	6	251	252.25
S	C	7	1	1	267.75	267.75	U	A	2	8	8	242.25	254
S	C	9	24	18	313.5	321.5	U	A	3	10	10	215	289
S	D	1	14	14	256.25	274	U	A	4	2	2	242.5	242.75
S	D	2	3	3	243	243.75	U	A	5	1	1	153.75	153.75
S	D	3	1	1	322.25	322.25	U	A	6	27	27	294	300
S	D	4	2	2	257.25	278.75	U	A	9	50	11	316.75	322.75
S	D	6	18	18	303	316	U	B	1	2	2	251	251.25
S	D	9	34	34	317.5	349.5	U	B	2	1	1	244	244
S	F	1	22	22	269.75	295.75	U	B	3	1	1	213	213
S	F	2	13	13	265.25	298.5	U	B	4	1	1	242.25	242.25
S	F	3	23	23	236.5	305	U	B	6	4	4	294	295.5
S	F	4	6	6	248.5	262.5	U	B	9	8	1	*	*
S	F	5	1	1	128.5	128.5	U	C	1	8	1	251	251
S	F	6	53	53	301.25	328.75	U	C	2	3	3	246	254.5
S	F	9	91	91	325	381.75	U	C	3	5	4	211	217
S	G	6	1	1	312	312	U	C	5	1	1	143.5	143.5
S	G	9	1	1	334	334	U	C	6	13	13	293.25	297.75
S	I	1	1	1	267	267	U	C	9	26	5	*	*
S	I	3	1	1	237.75	237.75	U	D	1	15	15	251.25	302
S	I	6	2	2	300	300.5	U	D	2	8	4	242	242.25
S	I	9	4	4	321.25	398.5	U	D	3	10	10	217.25	232
S	J	1	1	1	262.25	262.25	U	D	4	1	1	253.5	253.5
S	J	6	3	3	299.25	300	U	D	5	2	2	232.25	250.5
S	J	9	6	6	317.5	319.5	U	D	6	27	27	303.5	326.25
S	L	1	4	4	253.5	256.5	U	D	9	50	42	314	350.75
S	L	2	1	1	250.5	250.5	U	E	1	12	7	251	252.25
S	L	3	4	4	235	283.75	U	E	2	6	0	-	-
S	L	6	9	9	298.25	300.5	U	E	3	8	8	212	220.5
S	L	9	8	8	315.25	317.75	U	E	4	1	1	243.25	243.25
S	M	1	12	12	253	256.5	U	E	5	1	1	180	180
S	M	2	6	6	247.25	254	U	E	6	22	22	294.5	296.75
S	M	3	2	2	227.25	254	U	E	9	40	9	327.75	327.75
S	M	4	1	1	248.75	248.75	U	I	1	2	2	295.5	295.5
S	M	6	9	9	298.25	299	U	I	2	1	1	250.75	250.75
S	M	9	29	23	313.5	318.5	U	I	3	2	2	214.25	216.25
S	N	1	32	32	254.75	265	U	I	4	1	1	246	246
S	N	2	29	29	244.25	255.25	U	I	6	4	4	295.75	296.25
S	N	3	37	37	215	228.25	U	I	9	8	4	323	344.5
S	N	4	6	6	244.75	248.25	U	J	1	8	8	251	293
S	N	6	113	113	296.5	337.25	U	J	2	3	3	242.5	243
S	N	7	3	3	258.25	275.75	U	J	3	5	2	220.25	225
S	N	9	382	132	313.5	343.25	U	J	5	1	1	167	167
S	O	1	41	41	253.5	266.25	U	J	6	14	14	293.5	295.5
S	O	2	67	67	243	258	U	J	9	25	3	314.5	314.5
S	O	3	39	39	215.5	230.5	U	L	1	15	1	251.25	251.25
S	O	4	1	1	248.25	248.25	U	L	2	8	1	242.5	242.5
S	O	5	1	1	164.75	164.75	U	L	3	10	10	214.75	241.25
S	O	6	48	48	299	301.25	U	L	4	2	2	239.5	242.25
S	O	9	101	101	315.25	373	U	L	5	1	1	152.5	152.5
S	P	9	1	0	-	-	U	L	6	27	27	293	296.25
S	Q	2	1	1	277.25	277.25	U	L	9	50	15	314.25	347.25
S	Q	6	1	1	297.75	297.75	U	M	1	15	3	251	252.5
S	Q	9	1	1	315.75	315.75	U	M	2	7	0	-	-
S	R	6	1	1	297.75	297.75	U	M	3	10	10	212.25	221.75
S	R	9	2	0	-	-	U	M	4	1	1	242.25	242.25
S	S	1	1	1	274.5	274.5	U	M	5	2	2	141.5	142.75
S	S	3	1	1	214.25	214.25	U	M	6	27	27	293.75	295.5
S	S	6	1	1	*	*	U	M	9	51	11	318	318
S	U	1	7	7	265.5	277.25	U	N	1	15	15	251.5	256.25
S	U	2	6	6	257.75	281.25	U	N	2	8	8	243.5	341.25
S	U	3	9	9	226.5	253.5	U	N	3	10	10	212	239
S	U	4	3	3	246.25	248	U	N	4	2	2	242.5	242.75
S	U	6	15	15	301	307.75	U	N	5	1	1	176.75	176.75
S	U	9	35	35	321.75	344.5	U	N	6	27	27	294.5	296.25
S	V	1	1	1	277.75	277.75	U	N	9	50	17	313.5	360.25
S	V	2	1	1	*	*	U	O	1	15	15	252	321.5

U	O	2	8	8	248.75	269.25
U	O	3	10	10	212.5	225.5
U	O	4	1	1	244.25	244.25
U	O	5	2	2	170.75	176.5
U	O	6	27	27	295.75	308
U	O	9	50	21	315	344
U	P	1	2	1	251.75	251.75
U	P	2	1	1	256.5	256.5
U	P	3	1	1	212.25	212.25
U	P	4	1	1	239	239
U	P	6	2	2	*	*
U	P	9	5	0	-	-
U	R	1	4	0	-	-
U	R	2	3	3	245.75	249.5
U	R	3	3	0	-	-
U	R	4	1	1	239	239
U	R	6	8	8	293.25	294.75
U	R	9	15	0	-	-
U	S	1	1	0	-	-
U	S	2	1	1	259.25	259.25
U	S	6	1	1	293.25	293.25
U	S	9	2	1	316.5	316.5
U	T	1	11	2	251	251.75
U	T	2	5	0	-	-
U	T	3	8	8	224.25	285.75
U	T	4	1	1	243	243
U	T	5	1	1	150.5	150.5
U	T	6	21	21	294.25	317
U	T	9	38	10	318.25	334.5
U	U	1	21	21	256.5	293.25
U	U	2	10	10	252	283
U	U	3	14	14	219	287.5
U	U	4	2	2	247.75	249.5
U	U	5	2	2	180	183.5
U	U	6	37	37	295.75	313
U	U	9	72	60	313.75	368
U	X	1	7	1	253	253
U	X	2	3	1	242	242
U	X	3	5	5	217.5	226.5
U	X	4	1	1	240.75	240.75
U	X	5	1	1	140.5	140.5
U	X	6	14	14	293.5	297.25
U	X	9	26	3	*	*
U	Y	1	7	7	253.5	294.5
U	Y	2	4	4	242.75	243.75
U	Y	3	5	5	220	253.5
U	Y	5	1	1	186.5	186.5
U	Y	6	13	13	297.5	310
U	Y	9	26	26	314.75	350.75
V	\$	1	16	5	254.5	277
V	\$	2	15	0	-	-
V	\$	3	2	2	230.5	231
V	\$	4	2	2	238.75	240.5
V	\$	5	1	1	182.75	182.75
V	\$	6	31	31	291	314.5
V	\$	9	66	14	314	347.75
V	A	1	3	0	-	-
V	A	2	1	0	-	-
V	A	4	1	1	240	240
V	A	6	16	16	289.75	296
V	A	9	20	2	353	353
V	C	1	12	0	-	-
V	C	2	4	2	257.25	257.25
V	C	4	2	2	237	237.25
V	C	6	19	19	288.25	293.75
V	C	9	28	1	*	*
V	D	1	2	2	263	283.5
V	D	2	2	0	-	-
V	D	6	4	4	306.25	308.25
V	D	9	6	6	313.5	347.75
V	E	1	3	0	-	-
V	E	2	2	0	-	-
V	E	3	1	1	213	213
V	E	6	3	3	291	292.25
V	E	9	12	0	-	-
V	F	1	53	32	251	293.5
V	F	2	27	15	242	274.25
V	F	3	10	10	215	266
V	F	4	4	4	240.75	246
V	F	5	1	1	197	197
V	F	6	125	125	290.25	314.5
V	F	7	1	1	258.5	258.5
V	F	9	188	30	313.75	378
V	G	1	15	3	251	260
V	G	2	4	0	-	-
V	G	6	15	15	290	292.75
V	G	9	19	1	324	324
V	H	1	2	0	-	-
V	H	6	8	8	289.25	290
V	H	9	4	0	-	-
V	I	1	1	0	-	-
V	I	6	1	1	291.75	291.75
V	I	9	2	0	-	-

V	J	1	1	0	-	-
V	J	2	1	0	-	-
V	J	9	2	0	-	-
V	K	1	1	1	259.75	259.75
V	K	2	2	1	250	250
V	K	6	5	5	296.25	304.25
V	K	9	2	1	319.5	319.5
V	L	1	2	0	-	-
V	L	2	2	0	-	-
V	L	6	5	5	288.75	311.25
V	L	9	10	0	-	-
V	M	1	4	0	-	-
V	M	2	3	0	-	-
V	M	3	2	2	212	216.75
V	M	6	18	18	288.5	289.75
V	M	9	26	2	*	*
V	N	1	15	0	-	-
V	N	2	8	0	-	-
V	N	6	33	33	289	293.5
V	N	9	48	0	-	-
V	O	1	1	0	-	-
V	O	2	1	0	-	-
V	O	6	2	2	292.5	292.75
V	O	9	4	0	-	-
V	P	2	1	0	-	-
V	P	6	1	1	292	292
V	Q	1	2	0	-	-
V	Q	2	1	1	244.5	244.5
V	Q	6	3	3	288	290
V	Q	9	14	0	-	-
V	T	1	2	0	-	-
V	T	2	1	0	-	-
V	T	6	3	3	291	291.75
V	T	9	5	0	-	-
V	U	1	7	2	254	292.25
V	U	2	4	0	-	-
V	U	6	16	16	290.25	294.5
V	U	9	27	1	333.5	333.5
V	V	1	1	1	274.75	274.75
V	V	2	1	1	274.75	274.75
V	V	6	3	3	293.25	295.5
V	V	9	8	8	314.75	344
V	W	2	1	0	-	-
V	W	6	1	1	290.75	290.75
V	X	1	10	0	-	-
V	X	2	7	0	-	-
V	X	3	1	1	246	246
V	X	5	1	1	189.5	189.5
V	X	6	28	28	288	292.75
V	X	9	41	2	348.75	348.75
V	Y	1	1	0	-	-
V	Y	6	2	2	292.5	292.75
V	Y	9	3	0	-	-
V	Z	1	6	2	251.5	277
V	Z	2	2	0	-	-
V	Z	6	13	13	293	316.75
V	Z	9	22	4	320.75	355.75
W	F	6	1	1	350	350
W	F	9	4	4	362.5	372.5
W	L	9	1	1	370.25	370.25
W	M	1	1	1	309.25	309.25
W	M	9	1	1	354.75	354.75
W	N	1	4	4	282.5	288.75
X	\$	1	20	20	246.5	279.25
X	\$	2	8	8	238	260
X	\$	3	12	12	210.75	299
X	\$	4	1	1	238.75	238.75
X	\$	5	2	1	109.25	109.25
X	\$	6	26	26	292.25	312.75
X	\$	7	1	1	263.25	263.25
X	\$	9	70	70	307.75	385
X	A	1	21	21	240.5	265.75
X	A	2	8	8	227.25	243
X	A	6	2	2	303.25	311.25
X	A	9	71	71	299.25	338.75
X	C	3	3	3	207.5	210.5
X	C	4	2	2	228.5	230.5
X	C	5	1	0	-	-
X	C	9	16	16	302.75	309.25
X	D	1	6	6	255	276.75
X	D	2	5	2	236.75	242.5
X	D	3	3	3	213.5	229.5
X	D	4	7	7	233.5	244
X	D	6	2	2	*	*
X	D	9	17	17	325.75	346.5
X	F	1	10	10	276.25	282.75
X	F	2	10	10	256.75	300.75
X	F	3	10	10	231	298
X	F	4	3	3	262	268.25
X	F	6	35	35	298	327.5
X	F	9	49	49	327.5	372.25
X	G	1	15	15	258.5	281.5
X	G	3	13	13	205.5	248.5

X	G	4	4	4	234	236.75
X	G	6	43	43	288	308
X	G	9	75	75	309	342.5
X	L	1	3	3	240.5	250.5
X	L	2	1	1	231	231
X	L	3	2	2	258.5	259
X	L	6	2	2	314.25	314.25
X	L	9	18	18	298.25	343
X	M	1	3	3	246.5	251.75
X	M	2	3	3	230.25	241.25
X	M	3	2	2	259	275.5
X	M	4	2	2	233.25	248.25
X	M	5	2	0	-	-
X	M	6	4	4	292.25	314.25
X	M	7	2	2	243.25	254.5
X	M	9	24	24	305.25	313.5
X	N	1	158	66	236.25	298
X	N	2	108	11	227.5	243
X	N	3	72	29	199.5	281
X	N	4	17	17	222.75	253.75
X	N	5	18	1	120.5	120.5
X	N	6	62	62	286.75	311
X	N	9	462	298	298	316.5
X	O	2	5	5	230.25	248.5
X	O	5	2	1	141	141
X	O	6	1	1	*	*
X	O	7	1	1	268	268
X	O	9	47	47	310.25	327
X	T	1	1	1	254.25	254.25
X	T	2	1	1	241	241
X	T	3	2	2	210.5	240.5
X	T	9	11	11	307.25	336.5
X	U	1	6	6	268	273.25
X	U	2	3	3	251.75	253.25
X	U	3	4	4	220	301.5
X	U	4	1	1	251.25	251.25
X	U	6	11	11	295.75	316.75
X	U	9	21	21	322.75	348.25
X	V	1	5	5	265.25	280.25
X	V	2	5	5	262.75	279.25
X	V	3	7	7	208.5	295.5
X	V	4	2	2	250.75	250.75
X	V	5	2	2	165.5	169.75
X	V	6	18	18	294.75	324.25
X	V	7	2	2	273.5	278.75
X	V	9	43	43	316	369.25
X	X	1	21	10	236.25	248.25
X	X	2	16	2	235	235
X	X	3	10	10	209	237
X	X	5	1	1	139.75	139.75
X	X	6	18	18	287.75	295.5
X	X	7	1	1	255.75	255.75
X	X	9	248	19	298	345.75
X	Z	1	4	4	265.25	272.5
X	Z	2	3	3	245	250.5
X	Z	3	6	6	216	257
X	Z	5	1	1	175	175
X	Z	6	17	17	300.25	326.5
X	Z	7	1	1	282	282
X	Z	9	29	29	317	351.75
Y	\$	1	6	6	244.75	265.25
Y	\$	2	32	3	228.75	280.5
Y	\$	3	33	5	204	244.75
Y	\$	4	7	1	221	221
Y	\$	5	6	1	163.25	163.25
Y	\$	6	85	85	279	289.5
Y	\$	7	5	2	208.5	223.5
Y	\$	9	113	16	299	332.5
Y	A	1	34	1	238.25	238.25
Y	A	2	16	0	-	-
Y	A	3	20	3	200.5	216.25
Y	A	4	2	1	219.25	219.25
Y	A	5	2	0	-	-
Y	A	6	60	60	270	293.25
Y	A	7	2	1	200.75	200.75
Y	A	9	110	7	300.75	326.75
Y	F	1	26	26	238.75	279.5
Y	F	2	23	3	228.5	258.75
Y	F	3	21	13	199.5	269.5
Y	F	4	3	3	231.25	239.5
Y	F	5	2	2	104.75	123.25
Y	F	6	67	67	283.5	316.25
Y	F	7	1	1	252	252
Y	F	9	132	100	298.25	340.25
Y	G	1	56	5	240.25	254.75
Y	G	2	33	0	-	-
Y	G	3	29	0	-	-
Y	G	4	4	4	222.5	230.75
Y	G	5	4	0	-	-
Y	G	6	37	37	279.25	286.25
Y	G	9	164	3	319.5	319.5
Y	K	1	6	3	236.75	240.5
Y	K	2	7	0	-	-

Y	K	3	2	2	199	204.75
Y	K	4	1	1	228	228
Y	K	6	20	20	285.25	294.75
Y	K	9	12	7	298.25	326
Y	L	1	12	1	262.75	262.75
Y	L	2	3	0	-	-
Y	L	6	14	14	275.5	284.75
Y	L	9	91	1	319	319
Y	M	1	31	0	-	-
Y	M	2	13	0	-	-
Y	M	3	19	5	201	242
Y	M	4	4	2	222.25	223.5
Y	M	5	3	0	-	-
Y	M	6	55	28	270	284.25
Y	M	7	2	1	225.5	225.5
Y	M	9	93	6	*	*
Y	N	1	189	0	-	-
Y	N	2	94	0	-	-
Y	N	3	24	0	-	-
Y	N	4	8	3	220.25	221
Y	N	5	7	0	-	-
Y	N	6	341	150	270	283.75
Y	N	7	7	6	194.75	224.75
Y	N	9	634	8	-	-
Y	Q	2	3	3	227.25	232
Y	Q	3	2	0	-	-
Y	Q	5	1	0	-	-
Y	Q	9	19	0	-	-
Y	T	1	6	2	237.75	242
Y	T	2	9	0	-	-
Y	T	3	2	2	199	200.75
Y	T	4	1	0	-	-
Y	T	6	3	3	286.5	287
Y	T	9	29	2	307.75	307.75
Y	V	1	9	1	236.25	236.25
Y	V	2	4	1	243	243
Y	V	3	4	1	203.5	203.5
Y	V	5	1	0	-	-
Y	V	6	7	7	283.75	286.75
Y	V	7	1	1	225	225
Y	V	9	20	9	300.5	326.5
Y	X	1	91	0	-	-
Y	X	2	53	0	-	-
Y	X	3	66	6	200.5	222.25
Y	X	4	5	0	-	-
Y	X	5	5	0	-	-
Y	X	6	174	22	270	282.5
Y	X	7	6	0	-	-
Y	X	9	341	4	*	*
Y	Z	1	1	1	250.25	250.25
Y	Z	2	11	0	-	-
Y	Z	3	8	2	199.5	208.25
Y	Z	6	7	7	286.75	299.75
Y	Z	7	1	1	225.75	225.75
Y	Z	9	64	17	298.75	340.75

\* For explanation, please refer to Note 5

**List-IV (Option R to Z) (Reserve List for all Non-Interview posts)**

In Reserve List, following candidates were considered with their preferences replaced with preferences in default order i.e. Post preference - "RSTUVWXYZ" and State preference - "ABCDEFGHIJKLMNPOQRSTUVWXYZ\$#" :-

- Candidates who were not allocated in Select List.
- Candidates who did not appear for document verification as per the information sent by Regional Offices
- Considered as qualified in DEST at relaxed cut-off of 10% for UR and 15% for Other categories

Category	SC	ST	ExS	OH	HH	OBC	VH	UR	Total
VACANCIES	704	507	241	20	64	370	12	3170	4751
CANDIDATES RECOMMENDED	362	192	104	20	16	370	12	1736	2660
UNFILLED VACANCIES	342	315	137	0	48	0	0	1434	2091

Post wise, state wise and category wise details of Vacancies, selected candidates in List II along with Highest and Lowest Marks secured by first and last selected candidate against each state / category is as following ( Rows pertaining to posts with 0 vacancies remaining after select list of non-interview posts are not included) :

preference	state_code	category	Vacancies Remaining after SL	Filled in RL	Lowest Marks	Highest Marks
S	#	9	11	11	349.5	350.25
S	A	9	5	5	412.75	427.5
S	C	5	1	1	351.5	351.5
S	C	9	6	6	398.75	412.25
S	M	9	6	6	392.75	398
S	N	9	250	250	350.5	392
S	P	9	1	1	350.25	350.25
S	R	9	2	2	350.25	350.25
U	\$	2	1	1	284.5	284.5
U	\$	9	16	16	340.5	340.75
U	A	1	9	9	335	350
U	A	9	39	39	348	349.5
U	B	9	7	7	347.75	348
U	C	1	7	7	326.5	332
U	C	3	1	1	378.5	378.5
U	C	9	21	21	347.5	347.75
U	D	2	4	4	310	337
U	D	9	8	8	347	347.25
U	E	1	5	5	319.5	326.25

U	E	2	6	6	294.75	302.5
U	E	9	31	31	346.5	347
U	I	9	4	4	346.5	346.5
U	J	3	3	3	342.5	363.75
U	J	9	22	22	346	346.5
U	L	1	14	14	309	318.75
U	L	2	7	7	289.25	294
U	L	9	35	35	345	346
U	M	1	12	12	302.75	308.75
U	M	2	7	7	286.25	289
U	M	9	40	40	344	344.75
U	N	9	33	33	343.25	344
U	O	9	29	29	342.75	343.25
U	P	1	1	1	302.75	302.75
U	P	9	5	5	342.75	342.75
U	R	1	4	4	301.75	302.25
U	R	3	3	3	330	335.25
U	R	9	15	15	342.5	342.75
U	S	1	1	1	300.75	300.75
U	S	9	1	1	342.5	342.5
U	T	1	9	9	297	300
U	T	2	5	5	285.25	286
U	T	9	28	28	341.75	342.5
U	U	9	12	12	341.5	341.75
U	X	1	6	6	295.25	296.5
U	X	2	2	2	285	285
U	X	9	23	23	340.75	341.5
V	\$	1	11	11	281	281.75
V	\$	2	15	15	274	275.75
V	\$	9	52	52	330.75	331.75
V	A	1	3	3	294.5	295
V	A	2	1	1	283.75	283.75
V	A	9	18	18	340	340.5
V	C	1	12	12	291.75	293.75
V	C	2	2	2	283	283.25
V	C	9	27	27	339.5	340
V	D	2	2	2	282	282.25
V	E	1	3	3	291.25	291.5
V	E	2	2	2	281.75	281.75
V	E	9	12	12	339.25	339.5
V	F	1	21	21	288	291.25
V	F	2	12	12	280	281.75
V	F	9	158	158	335.25	339.25
V	G	1	12	12	285.5	287.75
V	G	2	4	4	280	280
V	G	9	18	18	335	335.25
V	H	1	2	2	284.75	285
V	H	9	4	4	335	335
V	I	1	1	1	284.75	284.75
V	I	9	2	2	335	335
V	J	1	1	1	284.5	284.5
V	J	2	1	1	279.75	279.75
V	J	9	2	2	335	335
V	K	2	1	1	279.5	279.5
V	K	9	1	1	335	335
V	L	1	2	2	284.5	284.5
V	L	2	2	2	279.5	279.5
V	L	9	10	10	334.75	335
V	M	1	4	4	283.5	284.5
V	M	2	3	3	278.75	279.25
V	M	9	24	24	334.5	334.75
V	N	1	15	15	283	283.5
V	N	2	8	8	278	278.75
V	N	9	48	48	333.5	334.25
V	O	1	1	1	283	283
V	O	2	1	1	278	278
V	O	9	4	4	333.5	333.5
V	P	2	1	1	277.75	277.75
V	Q	1	2	2	282.75	282.75
V	Q	9	14	14	333.25	333.5
V	T	1	2	2	282.75	282.75
V	T	2	1	1	277.75	277.75
V	T	9	5	5	333	333.25
V	U	1	5	5	282.5	282.75
V	U	2	4	4	277.25	277.75
V	U	9	26	26	332.5	333
V	W	2	1	1	277.25	277.25
V	X	1	10	10	282	282.5
V	X	2	7	7	276	277
V	X	9	39	39	332	332.5
V	Y	1	1	1	282	282
V	Y	9	3	3	332	332
V	Z	1	4	4	282	282
V	Z	2	2	2	275.75	276
V	Z	9	18	18	331.75	332
X	\$	5	1	0	-	-
X	C	5	1	0	-	-
X	D	2	3	3	272	273
X	M	5	2	0	-	-
X	N	1	92	92	250	280
X	N	2	97	86	227	271.5
X	N	3	43	43	211	302.5
X	N	5	17	12	103.75	192.25

X	N	9	164	164	314	378.75
X	O	5	1	0	-	-
X	X	1	11	11	248.25	249.75
X	X	2	14	0	-	-
X	X	9	229	229	303	313.75
Y	\$	2	29	0	-	-
Y	\$	3	28	0	-	-
Y	\$	4	6	6	222	229.25
Y	\$	5	5	0	-	-
Y	\$	7	3	3	200.75	210.5
Y	\$	9	97	9	*	*
Y	A	1	33	33	243.5	248.25
Y	A	2	16	0	-	-
Y	A	3	17	17	204.75	211
Y	A	4	1	1	260.75	260.75
Y	A	5	2	0	-	-
Y	A	7	1	1	285.25	285.25
Y	A	9	103	103	299.75	303
Y	F	2	20	0	-	-
Y	F	3	8	8	201.5	203.5
Y	F	9	32	32	298.5	299.25
Y	G	1	51	46	236	243.25
Y	G	2	33	0	-	-
Y	G	3	29	12	199	201.5
Y	G	5	4	0	-	-
Y	G	9	161	33	298	298.5
Y	K	1	3	0	-	-
Y	K	2	7	0	-	-
Y	K	9	5	0	-	-
Y	L	1	11	0	-	-
Y	L	2	3	0	-	-
Y	L	9	90	0	-	-
Y	M	1	31	0	-	-
Y	M	2	13	0	-	-
Y	M	3	14	0	-	-
Y	M	4	2	2	234.25	236.75
Y	M	5	3	0	-	-
Y	M	6	27	27	280.5	281.75
Y	M	7	1	1	269.25	269.25
Y	M	9	87	1	*	*
Y	N	1	189	0	-	-
Y	N	2	94	0	-	-
Y	N	3	24	15	204	246
Y	N	4	5	5	236.75	268.75
Y	N	5	7	3	110.25	137.75
Y	N	6	191	191	281.75	363.25
Y	N	7	1	1	277.25	277.25
Y	N	9	626	2	*	*
Y	Q	3	2	2	204	204
Y	Q	5	1	0	-	-
Y	Q	9	19	19	299.25	299.75
Y	T	1	4	0	-	-
Y	T	2	9	0	-	-
Y	T	4	1	1	234	234
Y	T	9	27	1	*	*
Y	V	1	8	0	-	-
Y	V	2	3	0	-	-
Y	V	3	3	0	-	-
Y	V	5	1	0	-	-
Y	V	9	11	0	-	-
Y	X	1	91	0	-	-
Y	X	2	53	1	*	*
Y	X	3	60	0	-	-
Y	X	4	5	5	231.75	233.75
Y	X	5	5	0	-	-
Y	X	6	152	152	272.5	280.5
Y	X	7	6	6	233.25	261.5
Y	X	9	337	8	*	*
Y	Z	2	11	0	-	-
Y	Z	3	6	0	-	-
Y	Z	9	47	0	-	-

\* For explanation, please refer to Note 5

**Note 1: Explanation of post codes in List III and List IV -**

**R: Auditor in CAG Offices**

**S: Auditor in CGDA Offices**

**T: Auditor in CGA Offices & Others**

**U: Junior Acctt./Accountant in CAG Offices**

**V: Junior Acctt./Accountant in CGA Offices**

**W: Upper Divisional Clerk**

**X: Tax Assistant in CBDT**

For post of X, vacancies in some States were clubbed together and considered under one single State Code as under :-

S. No.	State Code	State code under which considered
1	B, Q, P, R, S, W, C	C
2	K, D	D
3	E, O	O
4	H, M	M
5	I, V	V
6	J, U	U
7	Y, Z	Z
8	#, \$	\$

**Y: Tax Assistant in CBEC**

For post of Y, vacancies in some States were clubbed together and considered under one single State Code as under:-

Continued on page 62

Continued from page 61

S. No.	State Code	State code under which considered
1	E, O	O
2	B, C, P, R, S, W, Q	Q
3	U, J, F	F
4	#, \$	\$

**Z: Compiler, RGI** - No vacancies reported.

**Note 2:** Category/preferences of candidates have been taken from the data received from Regional Offices.

**Note 3 :** Codes for States/UTs are :-

A -Andhra Pradesh	O -Madhya Pradesh
B -Arunachal Pradesh	P -Manipur
C -Assam	Q -Meghalaya
D -Bihar	R -Mizoram
E -Chhattisgarh	S -Nagaland
F -Delhi	T -Orissa
G -Gujarat,	U -Punjab, Haryana & Chandigarh
H -Goa, Daman & Diu	V -Rajasthan
I -Himachal Pradesh	W -Tripura
J -Jammu & Kashmir	X -Tamil Nadu & Puducherry
K -Jharkhand	Y -Uttarakhand
L - Kerala & Lakshadweep	Z -Uttar Pradesh
M -Karnataka	\$ -West Bengal & Sikkim
N -Maharashtra, Dadra & Nagar Haveli	# -Andaman & Nicobar

**Note 4:** For Options X and Y, DEST was prescribed. Only those candidates have been considered in Select List who have qualified in DEST, as per the cut-off fixed at 5% mistakes for UR and 7% mistakes for Other categories. In Reserve List, only those candidates have been considered who have qualified in DEST, as per the cut-off fixed at 10% mistakes for UR and 15% mistakes for Other categories. There is exemption from DEST for PH candidates in CBBDT. There is no exemption from DEST for PH candidates in CBEC.

**Note 5 :** In all the above Tables, candidates selected against Horizontal vacancies have been shown in their vertical categories as well. In certain cases all vacancies shown filled against a vertical category have been filled by horizontal category candidates and hence the highest and lowest marks shown against such rows are zero as the same are available against the respective vertical category.

**Note 6 :** For Option I (Income Tax Inspector) and X (Tax Assistant in CBBDT), the States falling under respective cadre controlling authority (CCA) and which were considered for result processing are :-

S.No.	CCIT(CCA) zone	State/UTs covered under CCIT(CCA)
1	Ahmedabad	Gujarat, Dadra & Nagar Haveli, Daman & Diu
2	Bangalore	Karnataka & Goa
3	Bhopal	Madhya Pradesh & Chhattisgarh
4	Bhubaneswar	Orissa
5	Chandigarh	Punjab, Haryana, Himachal Pradesh, Jammu & Kashmir and Chandigarh (UT)
6	Chennai	Pondicherry & Tamil Nadu
7	Delhi	Delhi
8	Guwahati	Nagaland, Assam, Arunachal Pradesh, Manipur, Mizoram, Tripura and Meghalaya
9	Hyderabad	Andhra Pradesh
10	Jaipur	Rajasthan
11	Kanpur	Uttar Pradesh(West) and Uttarakhand
12	Kochi	Kerala and Lakshadweep
13	Kolkata	West Bengal, Sikkim and Andaman & Nicobar Island
14	Lucknow	Uttar Pradesh(East)
15	Mumbai	Maharashtra
16	Nagpur	Maharashtra
17	Patna	Bihar and Jharkhand
18	Pune	Maharashtra

**Note 7 :** For Option J (Inspector (Central Excise)) and Y (Tax Assistant in CBBDT), the States falling under respective cadre controlling Zone and which were considered for result processing are :-

S.No.	Cadre controlling zone	State/UTs falling under jurisdiction
1	Bangalore	Karnataka
2	Bhopal	Madhya Pradesh & Chhattisgarh
3	Bhubaneswar	Orissa
4	Chandigarh	Punjab, Haryana, Chandigarh, Jammu & Kashmir
5	Chennai	Pondicherry & Tamil Nadu
6	Cochin	Kerala and Lakshadweep
7	Delhi	Delhi, Punjab, Haryana, Chandigarh
8	Hyderabad	Andhra Pradesh
9	Lucknow	Uttar Pradesh
10	Mumbai	Maharashtra, Dadar & Nagar Haveli, Goa, Daman & Diu
11	Shillong	Nagaland, Assam, Arunachal Pradesh, Manipur, Mizoram, Tripura and Meghalaya
12	Vadodara	Gujarat
13	Kolkata	West Bengal, Sikkim, Andaman & Nicobar

7. Tie cases have been resolved by applying following criteria, one after another, as applicable till the Tie is resolved :-

If there are candidates for a particular post/group of posts having the same aggregate marks in both Tier I and Tier II Examinations, including the marks for Interview wherever applicable, then the tie will be resolved by the Commission by referring to the total marks of Tier II examination i.e., a candidate having more marks in Tier-II will be given preference. If the tie still persists then the total marks in Tier I examination will be referred to i.e. a candidate having more marks in this Examination will be given preference. This procedure will be followed by Date of Birth, i.e., the candidate older in age will get preference. Lastly, if the tie still persists, the tie will be finally resolved by referring to the alphabetical order of names, i.e., a candidate whose name begins with the alphabet which comes first in the alphabetical order will get preference.

8. There are 20 candidates in List I, 21 candidates in List II, 44 candidates in List III and 101 candidates in List IV whose candidature have been kept as Provisional by concerned regional offices. Concerned RDs/DDs will check the eligibility of such candidates thoroughly before their nomination. Based on post examination analysis, result of 456 candidates has been kept withheld by the Commission. Decision will be taken in their cases in due course.

9. The list of recommended candidates is purely **PROVISIONAL** and subject to the candidates fulfilling all the eligibility conditions prescribed in the Notice of the said examination and also subject to, among other things, thorough verification of their identity with reference to their photographs, signatures, handwritings, etc. on the application form, admission certificates, etc.

10. For candidates belonging to reserved categories for whom certain percentage of vacancies are reserved as policy of the Govt., the category status is indicated against their Roll No. It is important to note that some of them have been declared qualified only in the category mentioned against their Roll Nos. If any candidate does not actually belong to the category mentioned against him/her name, he/she may not be eligible to be included in the list. It is, therefore, in the interest of the candidates concerned to contact immediately the respective regional offices of the Commission in all such cases where they do not belong to the category shown against their Roll Nos.

11. Representations regarding the results, if any, should be addressed by 22.02.2013 to:

Shri Gopinath Nayak  
Under Secretary(C-1/1)  
(CGL Exam.,2012)  
Staff Selection Commission  
Block No.12, CGO Complex, Lodhi Road,  
New Delhi-110003.

**Requests for change in State shall be outright rejected. Representations not accompanied by relevant documents supporting the claim will not be examined. Representations received after 22.02.2013 will not be examined.**

**12. The four Lists of the selected candidates are now placed on the website <http://ssc.nic.in/>. Marks of qualified and non qualified candidates and list of withheld cases is also placed on the website.**

(Gopinath Nayak)

US(C-I)-I

davp 32204/11/0108/1213

EN 50/105

## Directorate General, Border Security Force

Block No. 10, CGO Complex, Lodhi Road, New Delhi - 110003

(Ministry of Home Affairs)

No.1/03/2013-PERS/BSF/11231

### RE-EMPLOYMENT/DEPUTATION (INCLUDING SHORT TERM CONTRACT)/ABSORPTION IN BSF AIR WING GROUP 'A' GAZETTED POSTS - PILOTS, ENGINEERS AND LOGISTICS OFFICERS

Applications are invited on prescribed proforma from eligible candidates for filling up the following Group 'A' Officers posts in BSF Air Wing on Deputation (including short term contract)/Absorption/Re-employment basis:-

S.No.	Posts vacant	Pay	Vacancies
1	Capt/Pilot (DIG)	PB-4 (Rs. 37400-67000) plus Grade Pay Rs. 8900/-	03
2	Senior Operations Officer (DIG)	PB-4 (Rs. 37400-67000) plus Grade Pay Rs. 8900/-	01
3	Commandant (Pilot)	PB-4 (Rs. 37400-67000) plus Grade Pay Rs. 8700/-	12
4	Chief Engineer (DIG)	PB-4 (Rs. 37400-67000) plus Grade Pay Rs. 8900/-	01
5	Deputy Chief Engineer (Commandant)	PB-4 (Rs. 37400-67000) plus Grade Pay Rs. 8700/-	04
6	Senior Aircraft Maintenance Engineer/ Senior Aircraft Radio Maintenance Engineer (2 I/C)	PB-3 (Rs.15600-39100) plus Grade Pay Rs. 7600/-	13
7	Junior Aircraft Maintenance Engineer/ Junior Aircraft Radio Maintenance Engineer (Deputy Commandant)	PB-3 (Rs. 15600-39100) plus Grade Pay Rs. 6600/-	07
8	Equipment Officer (Second In Command)	PB-3 (Rs.15600-39100) plus Grade Pay Rs. 7600/-	01
9	Logistics Officer (Deputy Commandant)	PB-3(Rs. 15600-39100) plus Grade Pay Rs. 6600/-	01
10	Junior Logistic Officer (Assistant Commandant)	PB-3(Rs.15600-39100) plus Grade Pay Rs. 5400/-	05
	Total vacancies		48

2. Detailed Advertisement containing application Form, Eligibility Conditions, Method and Modalities of recruitment, Aircraft-wise/Stream-wise vacancies and Vacancy Updation Chart can be seen/downloaded from BSF website [www.bsf.nic.in](http://www.bsf.nic.in).

3. In addition to the usual Government Pay & Allowances, the Officers in BSF Air Wing are entitled to draw Incentives and Deputation Allowance as per following rates:-

#### INCENTIVES:

Category	For Fixed Wing and Rotary Wing	For Embraer Jet aircraft
Captain Pilot	Rs. 1800/-per actual flying hour	Rs. 2500/-per actual flying hour
Co-Pilot	Rs. 1500/- per actual flying hour	Rs. 2000/- per actual flying hour
Engineers	Rs.750/- per certification	Rs.900/- per certification

#### DEPUTATION (DUTY) ALLOWANCE

Within the same station	5% of (Pay Band + Grade Pay)-subject to maximum of Rs. 2,000/- p. m.
In other cases	10 % of (Pay Band + Grade Pay)-subject to maximum, of Rs. 4,000/-p.m.

4. The Advertisement is open for one year subject to availability of vacancies as per the requirement. Eligible candidates may apply up to one year from the date of publication of this Advertisement in the Employment News. Last date for receipt of applications will be the last working day of the 12th month from the date of publication of the advertisement in the Employment News. The Advertisement is subject to modification/cancellation as and when necessary. Vacancies and Eligibility Criteria are subject to change as per the requirement.

5. For any enquiry contact Telephone No. 011-24364851 to 55. Extension -2604 or 2609.

(Vikash Chandra)  
Deputy Inspector General (Pers)  
EN 50/60

davp 19110/11/0400/1213



## Sainik School Tilaiya

(functioning under Sainik Schools Society, Ministry of Defence)  
Po - Tilaiya Dam, District - Koderma Jharkhand - 825413

1. Applications are invited for the following posts: -

(a) **Asst Master (TGT) (Mathematics)** - 01 Post (SC-01) on regular basis.

**Qualification:** Graduation with Mathematics as Main Subject and B.Ed (NCTE approved) with relevant subject from recognized university. Must have passed CTET/STET.

(b) **LDC** - 01 Post (UR - 01) on regular basis.

**Qualification.** (i) Matriculation, (ii) Typing speed of at least 40 words per minute & (iii) Knowledge of short hand and ability to correspond in English will be considered an additional qualification.

**Desirable.** B.A./B.Sc/B.Com degree & Computer qualified.

(c) **Ward Boys-** 02 Posts on purely contractual basis for one year only.

**Qualification.**

**Essential.** Should have passed Matriculation or equivalent examination and should be able to converse fluently in English.

**Desirable.** B.A./B.Sc/B.Com degree & Computer qualified. Achievements in Sports/Art/Music.

2. **Age** - For Para 1 (a) - Should not be below 21 and above 35 yrs as on 01 March 2013 or date of joining whichever is later. For Para 1 (b) to (c) - Should not be below 18 years of age and above 50 years of age as on 01 April 2013 or date of joining whichever is later.

3. **Pay/ Consolidated Remuneration.**

(a) **Asst Master (TGT).** PB-2 Rs. 9300-34800/- with GP of 4600/- alongwith other admissible allowances.

(b) **LDC.** PB-1 Rs. 5200 - 20200/- with GP 1900/- alongwith other admissible allowances.

(c) **Ward Boy (Cont).** Rs. 13300/- per month (fixed consolidated remuneration).

4. **Allowances and perquisites (For Para (a) and (b) only).** In addition to DA at Central Govt. rates, incumbents are entitled to free accommodation as available/HRA For, LTC, PF, Pension (as per New Pension Scheme), gratuity etc. and subsidized education for two children for all regular staff, subject to fulfilling minimum eligibility criteria.

**Para (a) only.** In addition to above, free electricity (limited units) and free messing for self except during vacation is also available for Academic staff.

5. Apply on plain paper with a passport size photo, post applied for and bio-data to include Name, address, telephone number with STD code, DOB status (Gen/SC/ST) academic record with percentage upto highest degree, co-curricular activities and level of participation in games, NCC, Experience of teaching certificates with exact date and institutions served duly countersigned by Dy Director of Edn/Regional Officer CBSE. Applications must accompany an A/C Payee DD of **Rs. 400/-** and **Rs. 100/-** (for SC candidates) (Non refundable) drawn in favour of **Principal Sainik School Tilaiya payable at State Bank of India, Sainik School Tilaiya Branch (Code - 3502).**

6. Applications with attested copies of documents along with self addressed envelope size 9" X 4" with Rs. 25/- stamps affixed must reach Principal Sainik School Tilaiya **within 21 days** of publication of the Advertisement. School will not be responsible for postal delay. No TA/DA will be paid to short listed candidates who only will be called for Interview.

7. The School administration reserves the right to cancel the vacancy due to administrative/policy reason.

**File No. SST/EST/11(a)/(b)**

**Date:**

Principal

EN 50/41

F.No. 35/8/2012/-Ad.I(A)/NCRB  
 Government of India  
 Ministry of Home Affairs

### National Crime Records Bureau

**Subject: Filling up two posts of Joint Assistant Director on deputation basis**  
 Ministry of Home Affairs vide their ID note No.24013/29/2010-CSR-IV dated 28.01.2013 has conveyed the approval of the competent authority to fill up two vacancies in the grade of Joint Assistant Director (JAD) in the Crime Records, Administration & Training Division of National Crime Records Bureau on deputation basis.  
 2. As per instructions of DoPT on deputation, the advt should invariably be published in the "Employment News" and also the vacancy circular should be addressed to all the agencies or sources of selection as specified in the RRs.  
 3. Applications in the prescribed proforma (Annexure - II) in duplicate alongwith complete and up-to-date APAR Dossiers of the Officers within a period of 60 days from the date of issue of this Advt. Applications received after the last date or without APAR Dossiers or otherwise found incomplete will not be considered. While forwarding the application it may also be verified and certified that the particulars furnished by the Officers are correct and no disciplinary case is either pending or contemplated against him/her. The integrity of the Officer may also be certified.

**Annexure - I**

1. **Name of the post** : Joint Assistant Director in Crime Records, Administration & Training Division, NCRB  
 2. **Number of posts** : TWO (02)  
 3. **Classification** : General Central Service Group 'A' Gazetted, Non-Ministerial  
 4. **Scale of Pay** : PB-3 of Rs. 15600-39100/- plus grade pay of Rs. 6600/-.  
 5. **Period of Deputation** : Period of deputation, including period of deputation in another ex-cadre post held immediately preceding this appointment in the same or some other organisation or department of the Central Government shall ordinarily not exceed three years. The maximum age limit for appointment by deputation shall be not exceeding 56 years, as on the closing date of receipt of applications.  
 6. **Eligibility Conditions**: Officers of the Central Government or State Governments or Union Territories

(i) (a) Holding analogous posts on regular basis; or  
 (ii) with five years regular service in posts in the Pay Band 3 of Rs.15600-39100 and Grade Pay of Rs.5400/-; or  
 (iii) with six years of regular service in posts in the Pay Band 2 of Rs.9300-34800 and Grade Pay of Rs.4800/-; or  
 (iv) with seven years of regular service in posts in the Pay Band 2 of Rs.9300-34800 and Grade Pay of Rs.4600/-; and  
 (b) Possessing five years experience in Police Administration and Crime Records Management.  
 2. The Departmental Deputy Superintendent (Crime Records) with seven years' regular service in the scale of pay of Rs. 9300-34800/- and Grade Pay of Rs. 4600/- shall also be considered alongwith outsiders and in case, he is selected for appointment to the post the same shall be deemed to have been filled by promotion.

**Note 1:-** For purpose of appointment on deputation basis, the service rendered on a regular basis by an officer prior to 1st January, 2006 or the date from which the revised pay structure based on the 6th Central Pay Commission recommendations has been extended, shall be deemed to be service rendered in the corresponding Grade Pay/pay scale extended based on recommendations of the Commission except where there has been merger of more than one pre-revised scale of pay into one grade with a common Grade Pay or pay scale, and where this benefit will extend only for the posts for which that Grade Pay/ pay scale is the normal replacement grade without any upgradation.

7. **Terms of deputation** : The terms and conditions of officer appointed to the post on deputation basis will be regulated according to the Department of Personnel and Training OM No.2/29/91-Estt.(Pay-II) dated 05.01.1994, as amended from time to time.

8. **Place of Posting** : New Delhi.  
 9. **Period of deputation** : Period of deputation (including short-term contract) including period of deputation (including short-term contract) in another ex-cadre post held immediately preceding this appointment in the same or some other organisation or department of the Central Government shall not ordinarily exceed three years.

10. **Terms of deputation** : The pay of officers selected on deputation basis will be regularised in accordance with the relevant provisions of DOPT's O.M.No.2/29/91-Estt. (Pay-II) dated 05.09.1994 -, as amended from time to time.

11. **Duties and Responsibilities attached to the post** : ● Procurement of office Equipments, Stationery. Furniture and Fixture through Government Stores / Authorized agencies viz., Kendriya Bhandar (KB). National Cooperative Consumer Federation of India Ltd. (NCCF), Delhi Consumer Cooperative Wholesale Store Ltd. (DCCW).

- Purchase of consumable items for functional requirement through the process of limited tenders/ quotations,
  - Management of vehicles including their upkeep.
  - Liaison with other Government agencies like CPWD (for Maintenance and upkeep of Civil and Electrical work).
  - To ensure that facilitation and support is extended by the General Branch to all other Branches to optimize functional efficiency which includes automation equipments viz. Photocopier and FAX machines etc.
  - To ensure that matters of urgency such as replies to Parliament Questions and various reports to Ministry are prioritized and deliverables reach the concerned departments in time.
  - Coordination and arrangements for Meetings / Conferences / Seminars /Annual day and other activities of the Bureau.
  - To prevent unauthorized entry of any public into office premises.
  - To ensure proper discipline amongst the staff of General Branch.
  - To ensure ideal atmosphere and weather conditions for officers and staff of the Bureau by way of provision / upkeep of AC Plants, AC units (Window and Split type), through the process of AMC (Annual Maintenance Contract).
  - Receipt and issue of Dak, dispatch of NCRB publications to CPOs, other Govt. offices and State Police.
  - State Supply, installation and maintenance of Intercom System, and P&T telephones in the Bureau.
  - To prepare budget estimates (BE & RE) under the "Minor works" and " Office Expenses" heads of account.
  - Monitoring the jobs of collection, co-ordination, Analysis and Dissemination of information on following subjects;
    - » Talash (Search System)
    - » Fire-arms co-ordination system
    - » Explosives
    - » Cultural Property
    - » General Crime and Railway Crime
  - Responsible for maintenance of crime data and general administration
  - Reply to Parliament Questions on the subject mentioned above
  - Assist to Assistant Director (Records) to perform the job of General Administration of Branch
12. In the event of selection, the candidates will not be allowed to withdraw their candidature subsequently.

**ANNEXURE -II**

**BIO DATA PROFORMA**

1. Name and Address in Block letters :
2. Date of Birth (In Christian era) :
3. Date of retirement under Central/State Government Rules. :
4. Educational Qualifications
5. Whether Educational and other qualifications required for the post are satisfied. (If any qualification has been treated as equivalent to the one prescribed in the rules state the authority for the same).

Qualifications/ Experience required	Qualifications/Experience possessed by the Officer
Essential (1) (2) (3)	
Desirable (1) (2) (3)	

6. Please state clearly whether in the light of entries made by you above you meet the requirements of the post.

## INDIAN AGRICULTURAL RESEARCH INSTITUTE

NEW DELHI - 110 012  
 ADVERTISEMENT NO. IARI/PER.V/1/2013

Applications are invited for filling up the following Technical Posts, Driver, & Skilled Support Staff at IARI HQ, New Delhi and its Regional Stations under the administrative control of Indian Council of Agricultural Research (ICAR):

Sl. No.	Name of the Post/ Grade/ Category & Place of posting	Pay Band/Pay scale and Grade Pay	No. of vacancies & Reservations position	Qualifications
1.	Technical Assistant T-3 Grade (Cat. II) (Field Farm Technician) IARI, New Delhi & its Regional Stations	PB-I/ Rs. 5200-20200/- +Grade Pay Rs. 2800	27 Posts UR - 13 SC - 04 ST - 02 OBC - 08	B.Sc in Agriculture OR equivalent from recognized University
2.	Hindi Translator, T-3 Grade (Cat.II) Press & Editorial Staff	PB-I/ Rs. 5200-20200/-+Grade Pay Rs. 2800	1 OBC New Delhi	BA (Hons.) in Hindi or equivalent qualification from a recognized university with 3 years experience in science writing and science journalism in Hindi language <b>Desirable:</b> Diploma in Journalism
3.	Field Man T-1 Grade (Cat.I) (Field Farm Technician) IARI, New Delhi & its Regional Stations	PB-I/ Rs. 5200-20200/-+Grade Pay Rs. 2000	18 Posts UR -08 SC - 02 ST - 02 OBC - 04 PH - 02	Matriculation with at least one year certificate in Agriculture from recognized Institutions.
4.	Laboratory Assistant/ T-3 Grade (Cat. II)	PB-I/Rs. 5200-20200/-+Grade Pay Rs. 2800	1-(UR) KVK- Shikohpur	Bachelor Degree in Agriculture from recognized University with Specialization in Horticulture PG in Horticulture will be preferred.
5.	Driver/ T-1 Grade (Cat.I)	PB-I/ Rs.5200-20200/-+Grade Pay Rs. 2000	1-(UR) KVK - Shikohpur	Matriculate (10th) from recognized Board. Possession of a valid and appropriate driving license from prescribed Govt. Authority/ Institution (The candidates will have to pass practical skill test to be taken by an appropriate committee of Institute/ Directorate
6.	Skilled Support Staff (Group-C)	PB-I/ Rs.5200-20200/-+Grade Pay Rs. 1800	1 - (UR) KVK - Shikohpur	Matriculate (10th) from recognized Institution/Board and should know cycling.

**NOTE : For details of age limit, general instructions to the candidates last date of receipt of applications form etc. candidates may visit institute's website (www.iari.res.in)**

(B.N.Rao)  
 Joint Director (Admn.)  
 EN 50/63

7. Details of Employment in chronological order (Enclose a separate sheet duly authenticated by your signature if the space below is insufficient.)

Office/ Instt/Org.	Post Held	From	To	Scale of Pay and Classification (Group) of post	Whether held on regular/ Ad-hoc basis	Nature of duties

8. Nature of present employment i.e.  
 (i) Ad-hoc Basis  
 (ii) Regular/on temporary basis  
 (iii) Pay in the Pay Band  
 (iv) Grade Pay drawn  
 9. In case the present employment is held on deputation/contract basis please state:-  
 (a) The date of initial appointment  
 (b) Period of appointment on deputation/contract  
 (c) Name of the parent Office/Organization to which you belong.  
 10. Additional details about present employment. Please state whether working under (indicate the name of your employer against the relevant column.)  
 (a) Central Government  
 (b) State Government or Union Territory  
 (c) Semi-Government or Statutory or Autonomous Organization  
 (d) Public Sector Undertaking  
 (e) Universities or Recognised Research Institutes  
 (f) Others  
 11. Are you in Revised Pay Structure? If yes, give the date from which the revision took place and also indicate the pre-revised scale.  
 12. Total emoluments per month now drawn  
 13. Additional information, if any, which you would like to mention in support of your suitability for the post. Enclose a separate sheet, if the space is insufficient.  
 14. Whether SC/ST/OBC  
 15. Remarks.

I have carefully gone through the vacancy circular/advertisement and certify that I have not concealed or misrepresented any information and I am well aware that the Bio-data supported by documents submitted by me will be assessed by the Selection Committee at the time of selection for the post.

Signature of the Candidate  
 Address: \_\_\_\_\_

Date

Countersigned

(Employer with Seal)

**Certificate to be furnished by the employer/Head of Office/Forwarding Authority:-**

1. Certified that the particulars furnished by Shri/Smt/Kumari \_\_\_\_\_ are correct and he/she possesses educational qualifications and experience mentioned in Annexure-II above. Also certified that:-  
 (i) There is no vigilance case pending/contemplated against him/her.  
 (ii) His/her complete CR dossier/APARs for the last 5 years duly attested (on each page) by an officer of the rank of Under Secretary to the Government of India or equivalent are enclosed.  
 (iii) His/her Integrity is beyond doubt.  
 (iv) No major/minor penalties has been imposed on him/her during the last 10 years/list of major/minor penalties imposed on him/her during the last 10 years is enclosed.  
**[Strike out which is not applicable]**

Signature  
 Name & Designation of the parent office  
 (with seal)  
 EN 50/16

Dated:  
 Place:

**Government of India  
Ministry of Development of N.E.Region  
North Eastern Council Secretariat  
Nongrim Hills, Shillong-793003**

**Advertisement No.NEC/ADM /50/80/Vol. VI**  
The North Eastern Council Secretariat is looking for the services of suitable officer for appointment on **deputation (including short term contract) basis** to the following post. The details of post, eligibility criteria, job requirement, qualification and experience required for the post is indicated in **Annexure-I** below. The maximum age limit for the post should not exceed 56 years as on the closing date of receipt of applications. The pay and other terms and conditions of deputation will be regulated in accordance with DOPT's O&M No.6/8/2009-Estt.(Pay II) dtd. : 17th June, 2010 as amended from time to time. Eligible and willing candidates may apply through proper channel in prescribed format - **Annexure-II**.

Cadre authorities/Head of Departments are requested to forward applications of eligible and willing candidates whose services can be spared on deputation immediately on selection so as to reach the **Director ( Admn.) within 60 days** from the date of publication of this advertisement in Employment News. Applications in prescribed format (**Annexure-II**) should be submitted in duplicate and should be accompanied by the following documents/certificates. In-complete applications or applications received after the last date will be summarily rejected without showing any reason.

- LIST OF ENCLOSURES TO BE ACCOMPANIED WITH THE APPLICATION.**
1. Application in prescribed format - Annexure-II duly completed, signed by the candidate and countersigned by the Cadre/Appointing authority.
  2. ACRs for the period not less than the period of eligibility service prescribed for the post, duly attested with seal on each page by an officer not below the rank of Under Secretary to the Govt. of India or equivalent.
  3. Integrity Certificate.
  4. Vigilance Clearance.
  5. No major or minor penalty certificate for the last 10 years of his service.
  6. A certificate to the effect that the particulars furnished by the candidate have been verified and found correct as per service records.
  7. Cadre clearance certificate.

(David Lalmalsawma)  
Director (Admn.)  
**ANNEXURE-I**

1. One post of **Executive Engineer ( Power )** in the pay scale of **Rs. 10000-325-15200/-** (Pre-revised) and Pay Band of **PB - 3 Rs. 15600-39100 GP Rs. 6600/-** (Revised) the period of Deputation ( including short term contract) shall not exceed 3 years .  
**Method of recruitment and Eligibility criteria : Deputation (including short-term contract)**  
Officers of the Central Government/State Governments/Union Territories/Public Sector Undertakings/Semi Government or Autonomous organization or statutory organization :  
(a) (i) holding analogous post on regular basis in the parent cadre/department; or  
(ii) with five years' service in the grade rendered after appointment thereto on a regular basis in post in the scale of Rs. 8000-13500 (Pre-revised)/ (Revised) PB-3 Rs.15,600-39,100/- + GP Rs. 5,400/- or equivalent in the parent cadre/department; or  
(iii) with eight years' service in the grade rendered after appointment thereto on a regular basis in post in the scale of Rs. 6500-10500/- (Pre-revised)/ (Revised) PB-2 Rs. 9,300-34,800/- + GP 4,600/-or equivalent in the parent cadre/department; and  
(b) possessing the following educational qualification and experience :  
(i) Bachelor's Degree in Electrical Engineering from a recognised University or equivalent; and  
(ii) five years' experience in formulation, execution and supervision of power development projects or schemes including hydro-electric generation projects and transmission and distribution.

**For Armed Forces Personnel:**  
The Armed Forces Personnel of the rank of Major or equivalent who are due to retire or to be transferred to reserve within a period of one year and possessing the educational qualifications and experience prescribed for deputationists shall also be considered. If selected, such officers will be given deputation terms up to the date on which they are due for release from the armed forces. Thereafter they may be continued on re-employment terms. In such case eligible officers have retired or have been transferred to reserve before the actual selection to the post is made their appointments will be on re-employment basis. (Re-employment up to the age of superannuation with reference to civil post).

Period of deputation/contract including period of deputation/contract in another ex-cadre post held immediately preceding this appointment in the same or some other organisation/ Department of the Central Government, shall ordinarily not exceed three years. (The maximum age limit for appointment by deputation/contract shall be not exceeding 56 years as on the closing date of receipt of application).

**Job requirement :** To assist Adviser(Power) in the preparation of plans and examination of schemes for power development (both generation and transmission) in the North Eastern Region. To collect information and monitor progress on the on-going schemes in the region by obtaining timely reports and by undertaking field visits and to check the estimates of projects/schemes and to ensure maintenance of proper follow up action on all such schemes. To assist NEC Secretariat in the preparation of plans for tapping alternative and renewable sources of energy.

**ANNEXURE II**

**CURRICULUM VITAE PROFORMA**

1. Name and Address (in Block Letters)
2. Date of Birth (in Christian era)
3. Date of retirement under Central/State Government Rules
4. Educational Qualifications
5. Whether Educational and other qualifications required for the post are satisfied, (If any qualification has been treated as equivalent to the one prescribed in the Rules, state the authority for the same)

Qualifications/Experience required	Qualifications/Experience possessed by the officer
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- Essential (1) (2) (3)**  
**Desired (1) (2)**  
6. Please state clearly whether in the light of entries made by you above, you meet the requirement of the post  
7. Details of Employment, in chronological order. Enclose a separate sheet duly authenticated by your signature, if the space below is insufficient.

Office/ Institution	Post held	From	To	Scale of Pay and Basic Pay	Nature of duties. (in detail)
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8. Nature of present employment i.e. Ad-hoc or Temporary or Quasi-Permanent or Permanent.:
9. In case the present employment is held on deputation/contract basis, please state :  
a) The date of initial appointment. :  
b) Period of appointment on deputation/contract. :  
c) Name of the parent office/ organization to which you belong. :  
10. Additional details about present employment Please state whether working under (indicate the name of your employer against the relevant column) :  
a) Central Govt.  
b) State Govt.  
c) Autonomous Organisations  
d) Government Undertakings  
e) Universities  
f) Others

11. Please state whether you are working in the same Department and are in the feeder grade or feeder to feeder grade. :
12. Are you in Revised Scale of Pay? If yes, give the date from which the revision took place and also indicate the pre-revised pay scale. :
13. Total emoluments per month now drawn. :
14. Additional information, if any, which you would like to mention in support of your suitability for the post. (This among, other things may provide information with regard to (i) additional academic qualifications (ii) professional training and (iii) work experience over and above prescribed, in the Vacancy Circular/Advertisement) :
15. Please state whether you are applying for deputation (ISTC)/Absorption/Re-employment Basis. (Officers under Central/State Governments are only eligible for "Absorption". Candidates of non-Government Organisations are eligible only for Short Term Contract.) :

**Tariff Authority for Major Ports, Mumbai**

The Tariff Authority for Major Ports, (TAMF), a Statutory Body under the Ministry of Shipping invites applications for filling up the following posts on Deputation/ Direct Recruitment basis as per the details given below :

Sr. No.	Name & Number of the vacancy	Pay Band & Grade Pay	Method of recruitment	Eligibility criteria
1	Assistant 1 (One) post	₹ 9,300 - 34,800 + Grade Pay ₹ 4,200/-	By Deputation/ absorption / direct recruitment	<b>Deputation / Absorption:</b> (i) From amongst the employees of the Central Govt./State Govt. organizations / Autonomous Body/ Public Sector Undertaking/ Major Ports holding analogous posts; or with 5 (five) years service in the immediate lower grade. (ii) Possessing the educational qualifications and experience prescribed for direct recruitment. <b>Direct Recruitment:</b> <b>(A) Educational and other qualifications:</b> (A) <b>Essential:</b> (1) Bachelor Degree from a recognized University, (2) At least 5 (five) years service in the immediate lower grade in the Central Govt./State Govt. organizations / Autonomous body / Public Sector Undertaking / Major Ports or in Reputed firm. (3) Should have good knowledge of office procedure, Rules and Regulations relating to Establishment and General Administration work and the capacity to examine the cases thoroughly with good qualities of noting and drafting. (B) <b>Desirable:</b> Should have proficiency in working on computer/personal computer.
2	Upper Division Clerk 1 (One) post	₹ 5,200- 20,200 +Grade Pay ₹ 2,400/-	By Deputation/ absorption / direct recruitment	<b>Deputation / Absorption:</b> (i) From amongst the employees of the Central Govt./State Govt. organizations / Autonomous Body/ Public Sector Undertaking/ Major Ports holding analogous posts; or with 8 years service in the Pay Band - 1 with scale of pay of ₹ 5,200 - 20,200/- + Grade Pay of ₹ 1,900/-. (ii) Possessing the educational and other qualifications for direct recruitment as prescribed below; <b>Educational and other qualifications:</b> <b>(A) Essential:</b> (1) Bachelor's Degree from a recognized University and (2) At least 8 years service in the immediate lower grade in the Pay Band - 1 with scale of pay of ₹ 5,200 - 20,200/- + Grade Pay of ₹ 1,900/- in Central /State Govt. /Autonomous bodies/ Public Sector Undertakings / Major Ports or in Reputed firms. <b>(B) Desirable:</b> Should be well versed in the operation of computer/familiarity with M.S. Office / Windows and similar software programmes.
3	Stenographer-D 1 (One) post	₹ 5,200- 20,200 + Grade Pay ₹ 2,400/-	By Direct Recruitment	<b>Educational and other qualifications:</b> <b>(A) Essential:</b> (1) Matriculation or equivalent. (2) A speed of 80 words per minute in Stenography (English or Hindi) and 40 words per minute in type writing. (3) At least 5 years experience in the scale of pay of ₹ 5,200 - 20,200/- + Grade Pay of ₹ 1,900/- in the Central /State Govt./ Autonomous bodies/ Public Sector Undertakings/Major Ports or in Reputed firms. <b>(B) Desirable:</b> Should be well versed in the operation of computer / Personal Computer / familiarity with Wordstar / Word Processing and similar software programmes.
4	Lower Division Clerk 1 (One) post	₹ 5,200- 20,200+ Grade Pay ₹ 1,900/-	By Deputation	<b>Deputation:</b> From amongst the employees of the Central Govt./State Govt./ Autonomous Body/ Public Sector Undertaking/ Major Ports holding analogous posts.

2. The posts will be filled up as per the method of recruitment prescribed against the respective posts on usual terms and conditions applicable in such cases. The maximum age limit for deputation shall be 56 years on the last date of receipt of application. The period of deputation shall not ordinarily exceed 3 years. The terms and conditions of deputation, the application format and other related information can be downloaded from the website of the Authority (<http://tariffauthority.gov.in>)
3. It is requested to forward the applications of the willing and eligible officials, whose services can be spared immediately for selection, to the Administrative Officer, Tariff Authority for Major Ports, 4th floor, Bhandar Bazaar, Muzawar Pakhadi Road, Mazgaon, Mumbai-400010 alongwith the ACRs of the officers for the last five years and clearance from administrative and vigilance angle with in 20 (twenty) days from the date of publication of the vacancy in the Employment News. No TA/DA will be admissible for the candidates called for the interview.

da vp 37209/11/0005/1213 EN 50/22

16. Whether belongs to SC/ST. :
17. Remarks (The candidates may indicate information with regard to (i) Research publications and reports and special projects (ii) Awards/Scholarship/Official Appreciation (iii) Affiliation with the professional bodies/institutions /societies and (iv) any other information. :  
**(Note:** Enclose a separate sheet, if the space is insufficient)  
Additional Information

18. Whether the present post held is on substantive basis or on officiating basis or on deputation/ short term contract :
19. Pay scale/Pay Band with Grade Pay of the present post held :
20. If Pay scale/Pay Band with Grade Pay in SI. no. 19 above is not that of the substantive post held (i.e. that on deputation/short term contract/ACP Scheme upgradation/MACP upgradation), then the substantive pay (with Pay Scale/ Pay Band with Grade Pay). :  
I have carefully gone through the vacancy circular/advertisement and I am well aware that the Curriculum Vitae duly supported by documents submitted by me will also be assessed by the Selection Committee at the time of selection for the post.

**Signature of the Candidate**  
Address.....

Date Countersigned

**(Employer with Seal)  
VIGILANCE CLEARANCE CERTIFICATE**

Certified that no vigilance case is pending or contemplated against Shri/Smti \_\_\_\_\_  
**Signature:**  
**Designation of**  
**Competent authority**

**MAJOR/MINOR PENALTIES REPORT**

Certified that there is no major or minor penalties imposed on Shri/Smti \_\_\_\_\_ during last 10 years.  
**Signature :**  
**Designation of**  
**Competent Authority.**

**INTEGRITY CERTIFICATE**

Service particulars of Shri/Smti \_\_\_\_\_ have been carefully scrutinized and it is certified that there is no doubt of his integrity.  
**Signature:**  
**Designation of**  
**competent authority**





सत्यमेव जयते

# UNION PUBLIC SERVICE COMMISSION

EXAMINATION NOTICE NO. 04/2013-CSP

DATE :05.03.2013

(LAST DATE FOR RECEIPT OF APPLICATIONS : 04/04/2013)

## CIVIL SERVICES EXAMINATION, 2013

(Commission's website-http://upsc.gov.in)

**F. No. 1/2/2012-E.I(B)** : Preliminary Examination of the Civil Services Examination for recruitment to the Services and Posts mentioned below will be held by the Union Public Service Commission on **26th May, 2012** in accordance with the Rules published by the Department of Personnel & Training in the Gazette of India Extraordinary dated **5th March, 2013**.

- (i) Indian Administrative Service.
- (ii) Indian Foreign Service.
- (iii) Indian Police Service.
- (iv) Indian P & T Accounts & Finance Service, Group 'A'.
- (v) Indian Audit and Accounts Service, Group 'A'.
- (vi) Indian Revenue Service (Customs and Central Excise), Group 'A'.
- (vii) Indian Defence Accounts Service, Group 'A'.
- (viii) Indian Revenue Service (I.T.), Group 'A'.
- (ix) Indian Ordnance Factories Service, Group 'A' (Assistant Works Manager, Administration).
- (x) Indian Postal Service, Group 'A'.
- (xi) Indian Civil Accounts Service, Group 'A'.
- (xii) Indian Railway Traffic Service, Group 'A'.
- (xiii) Indian Railway Accounts Service, Group 'A'.
- (xiv) Indian Railway Personnel Service, Group 'A'.
- (xv) Post of Assistant Security Commissioner in Railway Protection Force, Group 'A'.
- (xvi) Indian Defence Estates Service, Group 'A'.
- (xvii) Indian Information Service (Junior Grade), Group 'A'.
- (xviii) Indian Trade Service, Group 'A' (Gr. III).
- (xix) Indian Corporate Law Service, Group "A".
- (xx) Armed Forces Headquarters Civil Service, Group 'B' (Section Officer's Grade).
- (xxi) Delhi, Andaman & Nicobar Islands, Lakshadweep, Daman & Diu and Dadra & Nagar Haveli Civil Service, Group 'B'.
- (xxii) Delhi, Andaman & Nicobar Islands, Lakshadweep, Daman & Diu and Dadra & Nagar Haveli Police Service, Group 'B'.
- (xxiii) Pondicherry Civil Service, Group 'B'.
- (xxiv) Pondicherry Police Service, Group 'B'.

● The number of vacancies to be filled on the result of the examination is expected to be approximately 1000. The final number of vacancies may undergo change after getting firm number of vacancies from Cadre Controlling Authorities.

● Reservation will be made for candidates belonging to Scheduled Castes, Scheduled Tribes, Other Backward Classes and Physically Disabled Categories in respect of vacancies as may be fixed by the Government.

**Note I : The list of services participating in the Civil Services Examination, 2013 is tentative.**

**Note II : Services identified suitable for Physically Disabled Categories alongwith respective functional classification and physical requirements are given below :**

SI No.	Name of the Service	Category(ies) for which identified	*Functional Classification	*Physical requirements
1.	Indian Administrative Service	(i) Locomotor disability (ii) Visual impairment (iii) Hearing impairment	BA, OL, OA, BH, MW LV PD	S, ST,W, SE, H, RWT
2.	Indian Foreign Service	(i) Locomotor disability (ii) Visual impairment (iii) Hearing impairment	OA, OL, OAL LV HH	S, ST, W, RW, C,MF,SE
3.	Indian Revenue Service (Customs & Central Excise, Gr. 'A')	(i) Locomotor disability, (ii) Hearing impairment	OL, OA HH	S, ST,W, BN,L SE,MF, RW,H,C
4.	Indian P&T Accounts & Finance Service, Gr. 'A'	(i) Locomotor disability (ii) Visual impairment (iii) Hearing impairment	OA, OL, OAL, BL LV HH	S, W, SE, RW, C
5.	Indian Audit & Accounts Service, Gr. 'A'	(i) Locomotor disability (ii) Visual impairment (iii) Hearing impairment	OA, OL, OAL LV HH	S, ST,W,BN, SE,RW,H,C
6.	Indian Defence Accounts Service, Gr. 'A'	(i) Locomotor disability (ii) Visual impairment (iii) Hearing impairment	OA, OL, OAL, BL LV HH	S, ST, W, BN, SE, RW, C
7.	Indian Revenue Service (I.T.), Gr. 'A'	(i) Locomotor disability (ii) Hearing impairment	OA, OL, OAL, BL HH	S,ST,W,SE, RW,C

### IMPORTANT

**CANDIDATES SHOULD NOTE THAT THERE ARE CERTAIN CHANGES IN THE SCHEME OF CIVIL SERVICES (MAIN) EXAMINATION, WHICH HAVE BEEN ELUCIDATED IN THE SCHEME OF EXAMINATION. THERE ARE SOME OTHER CHANGES ALSO IN REGARD TO THE CHOICE OF LANGUAGE MEDIUM IN THE CIVIL SERVICES (MAIN) EXAMINATION. THESE MAY ALSO BE NOTED.**

- 1. CANDIDATES TO ENSURE THEIR ELIGIBILITY FOR THE EXAMINATION:**  
The Candidates applying for the examination should ensure that they fulfill all eligibility conditions for admission to examination. Their admission to all the stages of the examination will be purely **provisional** subject to satisfying the prescribed eligibility conditions.  
Mere issue of admission certificate to the candidate will not imply that his/her candidature has been finally cleared by the Commission.  
Commission take up verification of eligibility conditions with reference to original documents only after the candidate has qualified for Interview/Personality Test.
- 2. HOW TO APPLY:**  
Candidates are required to apply Online by using the website <http://www.upsonline.nic.in> Detailed instructions for filling up online applications are available on the above- mentioned website. Brief Instructions for filling up the "Online Application Form" given in Appendix-II.
- 3. LAST DATE FOR RECEIPT OF APPLICATIONS :**  
**The online Applications can be filled up to 4th April, 2013 till 11.59 PM after which the link will be disabled.**
- 4. The eligible candidates shall be issued an e-Admission Certificate three weeks before the commencement of the examination. The e-Admission Certificate will be made available in the UPSC website [www.upsc.gov.in] for downloading by candidates. No Admission Certificate will be sent by post.**
- 5. PENALTY FOR WRONG ANSWERS:**  
Candidates should note that there will be penalty (negative marking) for wrong answers marked by a candidate in the Objective Type Question Papers.
- 6. FACILITATION COUNTER FOR GUIDANCE OF CANDIDATES:**  
In case of any guidance/information/clarification regarding their applications, candidature etc. candidates can contact UPSC's Facilitation Counter near gate 'C' of its campus in person or over Telephone No. 011-23385271/011-23381125/011-23098543 on working days between 10.00 hrs and 17.00 hrs.
- 7. MOBILE PHONES BANNED:**  
(a) Mobile phones, pagers or any other communication devices are not allowed inside the premises where the examination is being conducted. Any infringement of these instructions shall entail disciplinary action including ban from future examinations.  
(b) Candidates are advised in their own interest not to bring any of the banned items including mobile phones/pagers to the venue of the examination, as arrangement for safe-keeping cannot be assured.
8. Candidates are advised not to bring any valuable/costly items to the Examination Halls, as safe-keeping of the same cannot be assured. Commission will not be responsible for any loss in this regard.

**Candidates are required to apply only through online mode no other mode for submission of applications is allowed**

8.	Indian Ordnance Factories Service, Gr. 'A'	(i) Locomotor disability (ii) Visual impairment (iii) Hearing impairment	OA, OL, OAL LV HH	S,ST,W,BN,RW, SE,H,C
9.	Indian Postal Service, Gr. 'A'.	(i) Locomotor disability (ii) Visual impairment (ii) Hearing impairment	OA, OL, OAL, BL LV HH	S, ST, W, BN, RW, SE, H, C
10.	Indian Civil Accounts Service, Gr. 'A'	(i) Locomotor disability (ii) Visual impairment (iii) Hearing impairment	OA, OL, OAL, BL LV HH	S,ST,W,SE, RW,H,C
11.	Indian Railway Accounts Service, Gr. 'A'	(i) Locomotor disability (ii) Visual impairment (iii) Hearing impairment	OA, OL, OAL, BL LV HH	S,ST,W,SE, RW, H,C

**"Government strives to have a workforce which reflects gender balance and women candidates are encouraged to apply"**

SI No.	Name of the Service	Category(ies) for which identified	*Functional Classification	*Physical requirements
12.	Indian Railway Personnel Service, Gr. 'A'	(i) Locomotor disability (ii) Visual impairment (iii) Hearing impairment	OA, OL  B, LV  HH	S,ST,W,BN, SE,RW,H,C
13.	Indian Railway Traffic Service Group 'A'	Locomotor disability	OA OL	S,ST, W, SE, RW H, C
14.	Indian Defence Estates Service Gr. 'A'	(i) Locomotor disability (ii) Blindness or Low Vision (iii) Hearing impairment	OA, OL  LV  HH	S,ST,W,BN, MF,PP,KC, SE,RW,H,C
15.	Indian Information Service, Gr. 'A'	(i) Locomotor disability (ii) Visual impairment (iii) Hearing impairment	OA, OL, OAL, BL B, LV  HH	,  S,ST,W,SE RW,H,C
16.	Indian Trade Service Gr. 'A' (Gr.III)	(i) Locomotor disability (ii) Visual impairment (iii) Hearing impairment	OA, OL, OAL, BL LV  HH	S,ST,W,BN, MF,SE,RW, H,C
17.	Indian Corporate Law Service, Group 'A'	(i) Locomotor disability (ii) Visual impairment (iii) Hearing impairment	OA,OL, BL LV  HH	ST, RW, SE S,BN,H
18.	Armed Forces Headquarters Civil Service, Gr.'B' (Section Officers' Grade)	(i) Locomotor disability (ii) Visual impairment (iii) Hearing impairment	OA, OL  LV  HH	S,ST,W,BN, MF, SE, RW, H,C
19.	Delhi, Andaman & Nicobar Islands, Lakshadweep, Daman & Diu and Dadra & Nagar Haveli Civil Service, Gr. 'B'	(i) Locomotor disability (ii) Hearing impairment	OA, OL,OAL, BL HH	S,ST,W,SE, RW, MF, H,C
20.	Delhi, Andaman & Nicobar Islands, Lakshadweep, Daman & Diu and Dadra & Nagar Haveli Police Service, Gr. 'B'	(i) Locomotor disability (ii) Hearing impairment	OL  HH	S,ST,W,BN, PP, KC, MF, SE, RW, H,C
21.	Pondicherry Civil Service, (Group B)	(i) Locomotor disability (ii) Visual impairment (iii) Hearing impairment	OA, OL, OAL, BL, LV LV  HH	S,ST,W,SE, RW,H,C

\*For details about Functional Classification and Physical Requirements, para 8 of this Notice may please be referred.

**2. (A) CENTRES OF EXAMINATION :** The Examination will be held at the following Centres:

AGARTALA	CHANDIGARH	IMPHAL	LUCKNOW	RANCHI
AHMEDABAD	CHENNAI	ITANAGAR	MADURAI	SAMBALPUR
AIZAWL	CUTTACK	JAIPUR	MUMBAI	SHILLONG
ALIGARH	DEHRADUN	JAMMU	NAGPUR	SHIMLA
ALLAHABAD	DELHI	JODHPUR	PANAJI (GOA)	SRINAGAR
AURANGABAD	DHARWAD	JORHAT	PATNA	THIRUVANANTHAPURAM
BANGALORE	DISPUR	KOCHI	PUDUCHERRY	TIRUPATI
BAREILLY	GANGTOK	KOHIMA	PORT BLAIR	UDAIPUR
BHOPAL	HYDERABAD	KOLKATA	RAIPUR	VISHAKHAPATNAM

The centres and the date of holding the examination as mentioned above are liable to be changed at the discretion of the Commission. Applicants should note that there will be a ceiling on the number of candidates allotted to each of the Centres, except Chennai, Delhi, Dispur, Kolkatta and Nagpur. Allotment of Centres will be on the "first-apply-first allot" basis, and once the capacity of a particular Centre is attained, the same will be frozen. Applicants, who cannot get a Centre of their choice due to ceiling, will be required to choose a Centre from the remaining ones. Applicants are, thus, advised that they may apply early so that they could get a Centre of their choice.

**NB: Notwithstanding the aforesaid provision, Commission reserve the right to change the Centres at their**

**discretion if the situation demands.**

Blind candidates will, however, be required to take the examination at any one of the seven centres viz. Chennai, Delhi, Hyderabad, Kolkata, Lucknow, Dispur and Mumbai. Candidates admitted to the examination will be informed of the time table and place or places of examination.

The candidates should note that no request for change of centre will be granted.

**(B) Plan of Examination :**

The Civil Services Examination will consist of two successive stages (vide Appendix I Section-I below).

- Civil Services Preliminary Examination (Objective type) for the selection of candidates for the Main Examination; and
- Civil Services Main Examination

(Written and Interview) for the selection of candidates for the various Services and posts noted above.

Applications are now invited for the Preliminary Examination only. Candidates who are declared by the Commission to have qualified for admission to the Main Examination will have to apply online again, in the Detailed Application Form which would be made available to them. The Main Examination is likely to be held in November/December, 2013.

**3. Eligibility Conditions :**

**(i) Nationality**

(1) For the Indian Administrative Service and the Indian Police Service, a candidate must be a citizen of India.

(2) For other services, a candidate must be either :—

- a citizen of India, or
- a subject of Nepal, or
- a subject of Bhutan, or
- a Tibetan refugee who came over to India before 1st January, 1962 with the intention of permanently settling in India, or
- a person of Indian origin who has migrated from Pakistan, Burma, Sri Lanka, East African countries of Kenya, Uganda, the United Republic of Tanzania, Zambia, Malawi, Zaire, Ethiopia and Vietnam with the intention of permanently settling in India.

Provided that a candidate belonging to categories (b), (c), (d) and (e) shall be a person in whose favour a certificate of eligibility has been issued by the Government of India.

Provided further that candidates belonging to categories (b), (c) and (d) above will not be eligible for appointment to the Indian Foreign Service.

A candidate in whose case a certificate of eligibility is necessary, may be admitted to the examination but the offer of appointment may be given only after the necessary eligibility certificate has been issued to him/her by the Government of India.

**(ii) Age Limits :**

(a) A candidate must have attained the age of 21 years and must not have attained the age of 30 years on **1st August, 2013**, i.e. he/she must have been born not earlier than **2nd August, 1983** and not later than **1st August, 1992**.

(b) The upper age limit prescribed above will be relaxable :

- upto a maximum of five years if a candidate belongs to a Scheduled Caste or a Scheduled Tribe.
- upto a maximum of three years in the case of candidates belonging to Other Backward Classes who are eligible to avail of reservation applicable to such candidates.

(iii) upto a maximum of five years if a candidate had ordinarily been domiciled in the State of Jammu & Kashmir during the period from the 1st January, 1980 to the 31st day of December, 1989.

(iv) upto a maximum of three years in the case of Defence Services personnel disabled in operations during hostilities with any foreign country or in a disturbed area and released as a consequence thereof.

(v) upto a maximum of five years in the case of ex-servicemen including Commissioned Officers and ECOs/SSCOs who have rendered at least five years Military Service as on **1st August, 2013** and have been released (i) on completion of assignment (including those whose assignment is due to be completed within one year from **1st August, 2013**) otherwise than by way of dismissal or discharge on account of misconduct or inefficiency, or (ii) on account of physical disability attributable to Military Service, or (iii) on invalidment.

(vi) Upto a maximum of five years in the case of ECOs/SSCOs who have com-

pleted an initial period of assignment of five years Military Service as on **1st August, 2013** and whose assignment has been extended beyond five years and in whose case the Ministry of Defence issues a certificate that they can apply for civil employment and that they will be released on three months notice on selection from the date of receipt of offer of appointment.

(vii) upto a maximum of 10 years in the case of blind, deaf-mute and orthopaedically handicapped persons.

**NOTE I:**

Candidates belonging to the Scheduled Castes and the Scheduled Tribes and the Other Backward Classes who are also covered under any other clauses of para 3(ii) (b) above, viz. those coming under the category of Ex-servicemen, persons domiciled in the State of J & K, blind, deaf-mute and orthopaedically handicapped etc. will be eligible for grant of cumulative age-relaxation under both the categories.

**NOTE II:**

The term ex-servicemen will apply to the persons who are defined as ex-servicemen in the Ex-servicemen (Re-employment in Civil Services and Posts) Rules, 1979, as amended from time to time.

**Note III :**

The age concession under para 3(ii) (b) (v) and (vi) will not be admissible to Ex-Servicemen and Commissioned Officers including ECOs/SSCOs who are released on own request.

**NOTE IV:**

Notwithstanding the provision of age-relaxation under para 3 (ii) (b) (vii) above, a physically disabled candidate will be considered to be eligible for appointment only if he/she (after such physical examination as the Government or appointing authority, as the case may be, may prescribe) is found to satisfy the requirements of physical and medical standards for the concerned Services/posts to be allocated to the physically disabled candidates by the Government.

**Save as provided above the age limits prescribed can in no case be relaxed.**

The date of birth accepted by the Commission is that entered in the Matriculation or Secondary School Leaving Certificate or in a certificate recognised by an Indian University as equivalent to Matriculation or in an extract from a Register of Matriculates maintained by a University, which extract must be certified by the proper authority of the University or in the Higher Secondary or an equivalent examination certificate.

**These certificates are required to be submitted only at the time of applying for the Civil Services (Main) Examination.**

No other document relating to age like horoscopes, affidavits, birth extracts from Municipal Corporation, service records and the like will be accepted.

The expression Matriculation/Secondary Examination Certificate in this part of the instruction includes the alternative certificates mentioned above.

**NOTE 1:**

**Candidates should note that only the Date of Birth as recorded in the Matriculation/Secondary Examination Certificate or an equivalent certificate as on the date of submission of applications will be accepted by the Commission and no subsequent request for its change will be considered or granted.**

**Note 2 :**

**Candidates should also note that once a Date of Birth has been claimed by them and entered in the records of the Commission for the purpose of admission to an examination, no**

change will be allowed subsequently (or at any other examination of the Commission) on any grounds whatsoever.

**Note 3 :**

The candidate should exercise due care while entering their date of birth in the online Application Form for the Preliminary Examination. If on verification at any subsequent stage, any variation is found in their date of birth from the one entered in their matriculation or equivalent Examination certificate, disciplinary action will be taken against them by the Commission under the Rules.

**(iii) Minimum Educational Qualifications :**

The candidate must hold a degree of any of Universities incorporated by an Act of the Central or State Legislature in India or other educational institutions established by an Act of Parliament or declared to be deemed as a University Under Section-3 of the University Grants Commission Act, 1956, or possess an equivalent qualification.

**Note I :**

Candidates who have appeared at an examination the passing of which would render them educationally qualified for the Commission's examination but have not been informed of the results as also the candidates who intend to appear at such a qualifying examination will also be eligible for admission to the Preliminary Examination. All candidates who are declared qualified by the Commission for taking the Civil Services (Main) Examination will be required to produce proof of passing the requisite examination with their application for the Main Examination failing which such candidates will not be admitted to the Main Examination. The applications for the Main Examination will be called sometime in the month of **August/September, 2013.**

**Note II :**

In exceptional cases the Union Public Service Commission may treat a candidate who has not any of the foregoing qualifications as a qualified candidate provided that he/she has passed examination conducted by the other Institutions, the standard of which in the opinion of the Commission justifies his/her admission to the examination.

**Note III :**

Candidates possessing professional and technical qualifications which are recognised by Government as equivalent to professional and technical degree would also be eligible for admission to the examination.

**Note IV :**

Candidates who have passed the final professional M.B.B.S. or any other Medical Examination but have not completed their internship by the time of submission of their applications for the Civil Services (Main) Examination, will be provisionally admitted to the Examination provided they submit along with their application a copy of certificate from the concerned authority of the University/Institution that they had passed the requisite final professional medical examination. In such cases, the candidates will be required to produce at the time of their interview original Degree or a certificate from the concerned competent authority of the University/Institution that they had completed all requirements (including completion of internship) for the award of the Degree.

**(iv) Number of attempts :**

Every candidate appearing at the examination who is otherwise eligible, shall be permitted four attempts at the examination.

Provided that this restriction on the number of attempts will not apply in the case

of Scheduled Castes and Scheduled Tribes candidates who are otherwise eligible.

Provided further that the number of attempts permissible to candidates belonging to Other Backward Classes, who are otherwise eligible shall be seven. The relaxation will be available to the candidates who are eligible to avail of reservation applicable to such candidates.

Provided further that a physically handicapped will get as many attempts as are available to other non-physically handicapped candidates of his or her community, subject to the condition that a physically handicapped candidate belonging to the General Category shall be eligible for seven attempts. The relaxation will be available to the physically handicapped candidates who are eligible to avail of reservation applicable to such candidates.

**Note :**

(i) An attempt at a Preliminary Examination shall be deemed to be an attempt at the Examination.

(ii) If a candidate actually appears in any one paper in the Preliminary Examination, he/she shall be deemed to have made an attempt at the Examination.

(iii) Notwithstanding the disqualification/cancellation of candidature, the fact of appearance of the candidate at the examination will count as an attempt.

**(v) Restrictions on applying for the examination :**

A candidate who is appointed to the Indian Administrative Service or the Indian Foreign Service on the results of an earlier examination and continues to be a member of that service will not be eligible to compete at this examination.

In case such a candidate is appointed to the IAS/IFS after the Preliminary Examination of **Civil Services Examination, 2013** is over and he/she continues to be a member of that service, he/she shall not be eligible to appear in the **Civil Services (Main) Examination, 2013** notwithstanding his/her having qualified in the **Preliminary Examination, 2013.**

Also provided that if such a candidate is appointed to IAS/IFS after the commencement of the **Civil Services (Main) Examination, 2013** but before the result thereof and continues to be a member of that service, he/she shall not be considered for appointment to any service/post on the basis of the result of this examination viz. **Civil Services Examination, 2013.**

**(vi) Physical Standards :**

Candidates must be physically fit according to physical standards for admission to **Civil Services Examination, 2013** as per guidelines given in Appendix-III of Rules for Examination published in the Gazette of India Extraordinary dated **5th March, 2013.**

**4. FEE :**

Candidates (excepting Female/SC/ST/PH Candidates who are exempted from payment of fee) are required to pay fee of **Rs. 100/- (Rupees One Hundred only)** either by remitting the money in any Branch of SBI by Cash, or by using net banking facility of State Bank of India/State Bank of Bikaner & Jaipur/State Bank of Hyderabad/State Bank of Mysore/State Bank of Patiala /State Bank of Travancore or by using Visa/Master Credit/Debit Card.

**For the applicants in whose case payments details have not been received from the bank they will be treated as fictitious payment cases and a list of all such applicants shall be made available on the Commission website within two weeks after the last day of submission of online application. These applicants shall also be intimat-**

**ed through e-mail to submit copy of proof of their payment to the Commission at the address mentioned in the e-mail. The applicant shall be required to submit the proof within 10 days from the date of such communication either by hand or by speed post to the Commission. In case, no response is received from the applicants their applications shall be summarily rejected and no further correspondence shall be entertained in this regard.**

**All female candidates and candidates belonging to Scheduled Caste/ Scheduled Tribe/ Physically Handicapped categories are exempted from payment of fee. No fee exemption is, however, available to OBC candidates and they are required to pay the prescribed fee in full.**

Physically disabled persons are exempted from the payment of fee provided they are otherwise eligible for appointment to the Services/Posts to be filled on the results of this examination on the basis of the standards of medical fitness for these Services/Posts (including any concessions specifically extended to the physically disabled). A physically disabled candidate claiming fee concession will be required by the Commission to submit along with their Detailed Application Form, a certified copy of the certificate from a Government Hospital/Medical Board in support of his/her claim for being physically disabled.

**NB :**

Notwithstanding the aforesaid provision for fee exemption, a physically disabled candidate will be considered to be eligible for appointment only if he/she (after such physical examination as the Government or the Appointing Authority, as the case may be, may prescribe) is found to satisfy the requirements of physical and medical standards for the concerned Services/Posts to be allocated to physically disabled candidates by the Government.

**Note I :**

Applications without the prescribed Fee (Unless remission of Fee is claimed) shall be summarily rejected.

**Note II :**

Fee once paid shall not be refunded under any circumstances nor can the fee be held in reserve for any other examination or selection.

**Note III :**

If any candidate who took the Civil Services Examination held in 2012 wishes to apply for admission to this examination, he/she must submit his/her application without waiting for the results or an offer of appointment.

**Note IV :**

Candidates admitted to the Main Examination will be required to pay a further fee of **Rs. 200/- (Rupees Two hundreds only).**

**5. How to Apply :**

(a) Candidates are required to apply online using the website **http://www.upsconline.nic.in** Detailed instructions for filling up online applications are available on the abovementioned website.

**The applicants are advised to submit only single application; however, if due to any unavoidable situation, if he/she submits another/multiple applications, then he/she must ensure that application with the higher RID is complete in all respects like applicants' details, examination centre, photograph, signature, fee etc. The applicants who are submitting multiple applications should note that only the applications with higher RID (Registration ID) shall be entertained by the Commission and fee paid against one RID shall not be adjusted against any other RID.**

(b) All candidates, whether already in Government Service, Government owned industrial undertakings or other similar organisations or in private employment should submit their applications direct to the Commission.

Persons already in Government Service, whether in a permanent or temporary capacity or as workcharged employees other than casual or daily rated employees or those serving under the Public Enterprises are however, required to submit an undertaking that they have informed in writing to their Head of Office/Department that they have applied for the Examination.

Candidates should note that in case a communication is received from their employer by the Commission withholding permission to the candidates applying for/appearing at the examination, their application will be liable to be rejected/candidature will be liable to be cancelled.

**NOTE 1 :**

**While filling in his/her Application Form, the candidate should carefully decide about his/her choice of centre for the Examination.**

**If any candidate appears at a centre other than the one indicated by the Commission in his/her Admission Certificate, the papers of such a candidate will not be evaluated and his/her candidature will be liable to cancellation.**

**NOTE 2 :**

**Candidates are not required to submit alongwith their applications any certificate in support of their claims regarding Age, Educational Qualifications, Scheduled Castes/ Scheduled Tribes/Other Backward Classes and Physically disabled etc. which will be verified at the time of the Main examination only. The candidates applying for the examination should ensure that they fulfil all the eligibility conditions for admission to the Examination. Their admission at all the stages of examination for which they are admitted by the Commission viz. Preliminary Examination, Main (Written) Examination and Interview Test will be purely provisional, subject to their satisfying the prescribed eligibility conditions. If on verification at any time before or after the Preliminary Examination, Main (written) Examination and Interview Test, it is found that they do not fulfil any of the eligibility conditions, their candidature for the examination will be cancelled by the Commission.**

**If any of their claims is found to be incorrect, they may render themselves liable to disciplinary action by the Commission in terms of Rule 14 of the Rules for the Civil Services Examination, 2012 reproduced below :**

A candidate who is or has been declared by the Commission to be guilty of :

- (i) Obtaining support for his/her candidature by the following means, namely :-
  - (a) offering illegal gratification to, or
  - (b) applying pressure on, or
  - (c) blackmailing, or threatening to blackmail any person connected with the conduct of the examination, or
- (ii) impersonating, or
- (iii) procuring impersonation by any person, or
- (iv) submitting fabricated documents or documents which have been tampered with, or
- (v) making statements which are incorrect or false or suppressing material information, or
- (vi) resorting to the following means in connection with his/her candidature for the examination, namely
  - (a) obtaining copy of question paper

through improper means,

(b) finding out the particulars of the persons connected with secret work relating to the examination.

(c) influencing the examiners, or

(vii) using unfair means during the examination, or

(viii) writing obscene matter or drawing obscene sketches in the scripts, or

(ix) misbehaving in the examination hall including tearing of the scripts, provoking fellow examinees to boycott examination, creating a disorderly scene and the like, or

(x) harassing or doing bodily harm to the staff employed by the Commission for the conduct of their examinations, or

(xi) being in possession of or using mobile phone, pager or any electronic equipment or device or any other equipment capable of being used as a communication device during the examination; or

(xii) violating any of the instructions issued to candidates along with their Admission Certificates permitting them to take the examination, or

(xiii) attempting to commit or as the case may be abetting the Commission of all or any of the acts specified in the foregoing clauses;

may in addition to rendering himself/herself liable to criminal prosecution, be liable.

(a) to be disqualified by the Commission from the examination for which he/she is a candidate and/or

(b) to be debarred either permanently or for a specified period

(i) by the Commission from any examination or selection held by them;

(ii) by the Central Government from any employment under them; and

(c) if he/she is already in service under Government to disciplinary action under the appropriate Rules.

Provided that no penalty under this Rules shall be imposed except after

(i) giving the candidate an opportunity of making such representation, in writing as he/she may wish to make in that behalf; and

(ii) taking the representation, if any, submitted by the candidate within the period allowed to him/her into consideration.

**6. Last date for receipt of applications : The Online Applications can be filled up to 4th April 2013 till 11.59 pm after which the link will be disabled.**

**7. Correspondence with the Commission:**

The Commission will not enter into any correspondence with the candidates about their candidature except in the following cases:

(i) The eligible candidates shall be issued an e-Admission Certificate three weeks before the commencement of the examination. The e-Admission Certificate will be made available on the UPSC website [www.upsc.gov.in] for downloading by candidates. No Admission Certificate will be sent by post. If a candidate does not receive his e-Admission Certificate or any other communication regarding his/her candidature for the examination **three weeks** before the commencement of the examination, he/she should at once contact the Commission. Information in this regard can also be obtained from the Facilitation Counter located in the Commission's Office either in person or over phone Nos. 011-23381125/011-23385271/011-23098543. **In case no communication is received in the Commission's Office from the candidate regarding non-receipt of his/her Admission Certificate at least 3 weeks before the examination, he/she himself/herself will be solely responsible**

**for non-receipt of his/her Admission Certificate.**

**No candidate will ordinarily be allowed to take the examination unless he/she holds a certificate of admission for the examination. On downloading of e-Admission Certificate, check it carefully and bring discrepancies/errors, if any, to the notice of UPSC immediately.**

The candidates should note that their admission to the examination will be purely provisional based on the information given by them in the Application Form. This will be subject to verification of all the eligibility conditions by the UPSC.

**The mere fact that a certificate of admission to the Examination has been issued to a candidate, will not imply that his/her candidature has been finally cleared by the Commission or that entries made by the candidate in his/her application for the Preliminary examination have been accepted by the Commission as true and correct. Candidates may note that the Commission takes up the verification of eligibility conditions of a candidate, with reference to original documents, only after the candidate has qualified for Civil Services (Main) Examination. Unless candidature is formally confirmed by the Commission, it continues to be provisional.**

The decision of the Commission as to the eligibility or otherwise of a candidate for admission to the Examination shall be final.

Candidates should note that the name in the Admission Certificate in some cases, may be abbreviated due to technical reasons.

(ii) In the event of a candidate downloading more than one Admission Certificate from the Commission's website, he/she should use only one of these Admission Certificates for appearing in the examination and report about the other(s) to the Commission's Office.

(iii) Candidates are informed that as the Preliminary Examination is only a screening test, no marks sheets will be supplied to successful or unsuccessful candidates and no correspondence will be entertained by the Commission, in this regard.

(iv) If a candidate receives an e-Admission Certificate in respect of some other candidate the same should be immediately returned to the Commission with a request to issue the correct e-Admission Certificate. Candidates may note that they will not be allowed to take the examination on the strength of an Admission Certificate issued in respect of another candidate.

(v) Candidates must ensure that their e-mail IDs given in their online applications are valid and active.

**Important :** All communications to the Commission should invariably contain the following particulars.

1. Name and year of the examination.
2. Registration ID (RID)
3. Roll Number (if received)
4. Name of candidate (in full and in block letters)
5. Complete postal address as given in the application.

**N.B. I. Communication not containing the above particulars may not be attended to.**

**N.B. II. Candidates should also note down their RID number for future reference. They may be required to indicate the same in connection with their candidature for the Civil Services (Main) Examination.**

8. The eligibility for availing reservation against the vacancies reserved for the physically disabled persons shall be the same as prescribed in "The Persons with Disability (Equal Opportunities, Protection of Rights and Full

Participation) Act, 1995."

Provided further that the physically disabled candidates shall also be required to meet special eligibility criteria in terms of physical requirements/functional classification (abilities/disabilities) consistent with requirements of the identified Service/Post as may be prescribed by its Cadre Controlling Authority at note-II of Para-1 of this Notice.

The physical requirement and functional classification can for example be one or more of the following :

Code	Physical Requirements
MF	1. Work performed by Manipulation by Fingers
PP	2. Work Performed by Pulling & Pushing
L	3. Work Performed by Lifting
KC	4. Work Performed by Kneeling and Crouching
BN	5. Work Performed by Bending
S	6. Work Performed by Sitting (on bench or chair)
ST	7. Work Performed by Standing
W	8. Work Performed by Walking
SE	9. Work Performed by Seeing
H	10. Work Performed by Hearing/Speaking
RW	11. Work Performed by Reading and Writing
C	12. Communication
Code	Functional Classification
BL	1. Both legs affected but not arms
BA	2. Both arms affected a. Impaired Reach b. Weakness of Grip. c. ataxic
BLA	3. Both legs and both arms affected.
OL	4. One leg affected (R or L) a. impaired reach b. weakness of grip c. ataxic
OA	5. One arm affected (R or L) a. impaired reach b. weakness of grip c. ataxic
OAL	6. One arm and one leg affected
MW	7. Muscular weakness.
B	8. Blind
LV	9. Low vision
H	10. Hearing

**Note :** The above list is subject to revision.

9. A candidate will be eligible to get the benefit of community reservation only in case the particular caste to which the candidates belong is included in the list of reserved communities issued by the Central Government. If a candidate indicates in his/her application form for Civil Services (Preliminary) Examination that he/she belongs to General category but subsequently writes to the Commission to change his/her category to a reserved one, such request shall not be entertained by the Commission. Similar principle will be followed for physically disabled categories also.

While the above principle will be followed in general, there may be a few cases where there was a little gap (say 2-3 months) between the issuance of a Government Notification enlisting a particular community in the list of any of the reserved communities and the date of submission of the application by the candidate. In such cases the request of change of community from general to reserved may be considered by the Commission on merit. In case of a candidate unfortunately becoming physically disabled during the course of the examination, the candidate should produce

valid documents to enable the Commission to take a decision in the matter on merit.

10. The closing date fixed for the receipt of the application will be treated as the date for determining the OBC status (including that of creamy layer) of the candidate.

11. **Withdrawal of applications :** NO request for withdrawal of candidature received from a candidate after he/she has submitted his/her application will be entertained under any circumstances.

(MALAY MUKHOPADHYAY)

DEPUTY SECRETARY

UNION PUBLIC SERVICE COMMISSION

## Appendix-I

### Section-I

#### Plan of Examination

The competitive examination comprises two successive stages :

(i) Civil Services (Preliminary) Examinations (Objective Type) for the selection of candidates for Main Examination; and

(ii) Civil Services (Main) Examination (Written and Interview) for the selection of candidates for the various services and posts.

2. The Preliminary Examination will consist of two papers of Objective type (multiple choice questions) and carry a maximum of 400 marks in the subjects set out in sub-section (A) of Section-II. This examination is meant to serve as a screening test only; the marks obtained in the Preliminary Examination by the candidates who are declared qualified for admission to the Main Examination will not be counted for determining their final order of merit. The number of candidates to be admitted to the Main Examination will be about twelve to thirteen times the total approximate number of vacancies to be filled in the year in the various Services and Posts. Only those candidates who are declared by the Commission to have qualified in the Preliminary Examination in the year will be eligible for admission to the Main Examination of that year provided they are otherwise eligible for admission to the Main Examination.

3. Candidates who obtain such minimum qualifying marks in the written part of the Main Examination as may be fixed by the Commission at their discretion, shall be summoned by them for interview for a Personality Test vide sub-section 'C' of Section-II. Marks obtained in the papers will be counted for ranking. The number of candidates to be summoned for interview will be about twice the number of vacancies to be filled.

Marks thus obtained by the candidates in the Main Examination (written part as well as interview) would determine their final ranking. Candidates will be allotted to the various Services keeping in view their ranks in the examination and the preferences expressed by them for the various Services and Posts.

### Section-II

Scheme and subjects for the Preliminary and Main Examinations.

#### A. Preliminary Examination

The Examination shall comprise two compulsory papers of 200 marks each.

**Note** (i) Both the question papers will be of the objective type (multiple choice questions).

(ii) The question papers will be set both in Hindi and English. However, questions relating to English Language Comprehension skills of Class X level will be tested through passages from English Language only without providing Hindi translation thereof in the question paper.

(iii) Details of the syllabi are indicated in Part A of Section III.

(iv) Each paper will be of two hours duration.

Blind candidates will however, be allowed an extra time of twenty minutes at each paper.

### B. Main Examination

The written examination will consist of the following papers :

#### Paper-I

**Section 1 Essay 200 Marks**

**Section 2 English Comprehension**

**& English Précis- 100 Marks**

**(of Matriculation/ Xth standard level)**

#### Paper-II

**General Studies-I 250 Marks**

(Indian Heritage and Culture, History and Geography of the World and Society)

#### Paper-III

**General Studies -II 250 Marks**

(Governance, Constitution, Polity, Social Justice and International relations)

#### Paper-IV

**General Studies -III 250 Marks**

(Technology, Economic Development, Bio-diversity, Environment, Security and Disaster Management)

#### Paper-V

**General Studies -IV 250 Marks**

(Ethics, Integrity and Aptitude)

#### Paper-VI

**Optional Subject - Paper 1 250 Marks**

#### Paper-VII

**Optional Subject - Paper 2 250 Marks**

**Sub Total (Written test) 1800 Marks**

**Personality Test 275 Marks**

**Grand Total 2075 Marks**

{Candidates may choose any optional subject from amongst the list of subjects given in para 2 below (**Group 1**). However, a candidate can opt for the literatures of a language, indicated in **Group-2** below para 2, as an optional subject, only if the candidate has graduated in the literature of that particular language as the main subject}.

**NOTE:** (i) Marks obtained by the candidates for all papers (Paper I-VII) will be counted for merit ranking. However, the Commission will have the discretion to fix qualifying marks in any or all papers of the examination.

**Note (ii)** For the Language medium/literature of languages, the script to be used by the candidates will be as under :-

Language	Script
Assamese	Assamese
Bengali	Bengali
Bodo	Devanagari
Dogri	Devanagari
Gujarati	Gujarati
Hindi	Devanagari
Kannada	Kannada
Kashmiri	Persian
Konkani	Devanagari
Maithili	Devanagari
Malayalam	Malayalam
Manipuri	Bengali
Marathi	Devanagari
Nepali	Devanagari
Oriya	Oriya
Punjabi	Gurumukhi
Sanskrit	Devanagari
Santhali	Devanagari or Olchiki
Sindhi	Devanagari or Arabic
Tamil	Tamil
Telugu	Telugu
Urdu	Persian

**Note :** For Santhali language, question paper will be printed in Devanagari script; but candidates will be free to answer either in Devanagari script or in Olchiki.

### 2. List of optional subjects for Main Examination:

#### Group-1

- Agriculture
- Animal Husbandry and Veterinary Science
- Anthropology
- Botany
- Chemistry

- Civil Engineering
- Commerce and Accountancy
- Economics
- Electrical Engineering
- Geography
- Geology
- History
- Law
- Management
- Mathematics
- Mechanical Engineering
- Medical Science
- Philosophy
- Physics
- Political Science and International Relations
- Psychology
- Public Administration
- Sociology
- Statistics
- Zoology

#### Group-2

#### Literature of any one of the following languages:

Assamese, Bengali, Bodo, Dogri, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Maithili, Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi, Sanskrit, Santhali, Sindhi, Tamil, Telugu, Urdu and English.

#### NOTE:

(i) The question papers for the examination will be of conventional (essay) type.

(ii) Each paper will be of three hours duration.

(iii) Candidates will have the option to answer all the question papers, except Section 2 of the Paper-I (English comprehension and English précis) in English or Hindi. If the candidate has had his/ her graduation in any of the following language mediums using the particular language medium for qualifying the graduate level examination, then he/she may opt for that particular language medium to answer all the question papers, except Section 2 of the Paper-I (English comprehension and English précis).

Assamese, Bengali, Bodo, Dogri, Gujarati, Kannada, Kashmiri, Konkani, Maithili, Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi, Sanskrit, Santhali, Sindhi, Tamil, Telugu, and Urdu.

(iv) However, in the interest of maintaining the quality and standards of examination, a minimum number of 25 (twenty-five) candidates should opt for a specific language medium for answering the question papers in that language medium. In case there are less than 25 (twenty-five) candidates opting for any approved language medium (other than English or Hindi), then those candidates will be required to write their examination either in Hindi or in English only.

(v) Candidates exercising the option to answer Papers in any one of the languages mentioned above may, if they so desire, give English version within brackets of only the description of the technical terms, if any, in addition to the version in the language opted by them. Candidates should, however, note that if they misuse the above rule, a deduction will be made on this account from the total marks otherwise accruing to them and in extreme cases; their script(s) will not be valued for being in an unauthorized medium.

(vi) The question papers (other than the literature of language papers) will be set in Hindi and English only.

(vii) The details of the syllabi are set out in Part B of Section III.

#### "General Instructions (Preliminary as well as Main Examination)" :

(i) Candidates must write the papers in their own hand. In no circumstances, will they be allowed the help of a scribe to write the answers for them. However, blind candidates will be allowed to write the examination with the help of a

scribe. Blind candidates will also be allowed an extra time of thirty minutes at each paper @ ten minutes per hour.

(ii) An extra time of twenty minutes per hour shall be permitted for the candidates with locomotor disability and cerebral palsy where dominant (writing) extremity is affected to the extent of slowing the performance of function (minimum of 40% impairment) **in the Civil Services (Main) Examination only.** However, no scribe shall be permitted to such candidates.

**Note 1 :** The eligibility conditions of a scribe, his/her conduct inside the examination hall and the manner in which and extent to which he/she can help the blind candidate in writing the Civil Services Examination shall be governed by the instructions issued by the UPSC in this regard. Violation of all or any of the said instructions shall entail the cancellation of the candidature of the blind candidate in addition to any other action that the UPSC may take against the scribe.

**Note 2 :** For purpose of these rules the candidate shall be deemed to be a blind candidate if the percentage of visual impairment is 40% or more. The criteria for determining the percentage of visual impairment shall be as follows :

	All with corrections		Percentage
	Better eye	Worse eye	
Category 0	6/9-6/18	6/24 to 6/36	20%
Category I	6/18-6/36	6/60 to nil	40%
Category II	6/60-4/60 or field of vision 10-20 <sup>0</sup>	3/60 to nil	75%
Category III	3/60-1/60 or field of vision 10 <sup>0</sup>	F.C. at 1 ft to nil	100%
Category IV	FC. at 1 ft to nil field of vision 100 <sup>0</sup>	F.C. at 1 ft to nil field of vision 100 <sup>0</sup>	100%
One eyed person	6/6	F.C. at 1 ft to nil	30%

**Note 3 :** For availing of the concession admissible to a blind candidate, the candidate concerned shall produce a certificate in the prescribed proforma from a Medical Board constituted by the Central/State Governments alongwith his application for the Main Examination.

**Note 4 :** (i) The concession admissible to blind candidates shall not be admissible to those suffering from Myopia.

(ii) The Commission have discretion to fix qualifying marks in any or all the subjects of the examination.

(iii) If a candidate's handwriting is not easily legible, a deduction will be made on this account from the total marks otherwise accruing to him.

(iv) Marks will not be allotted for mere superficial knowledge.

(v) Credit will be given for orderly, effective and exact expression combined with due economy of words in all subjects of the examination.

(vi) In the question papers, wherever required, SI units will be used.

(vii) Candidates should use only international form of Indian numerals (i.e. 1,2,3,4,5,6 etc.) while answering question papers.

(viii) Candidates will be allowed the use of Scientific (Non-Programmable type) Calculators at the conventional (Essay) type examination of UPSC. Programmable type calculators will however not be allowed and the use of such calculators shall tantamount to resorting to unfair means by the candidates. Loaning or interchanging of calculators in the Examination Hall is not permitted.

It is also important to note that candidates are not permitted to use calculators for answering objective type papers (Test Booklets). They should not therefore, bring the same inside the Examination Hall.

### C. Interview test

The candidate will be interviewed by a Board who will have before them a record of his/her career. He/she will be asked questions on matters of general interest. The object of the interview is to assess the personal suitability of the candidate for a career in public service by a Board of competent and unbiased observers. The test is intended to judge the mental calibre of a candidate. In broad terms this is really an assessment of not only his intellectual qualities but also social traits and his interest in current affairs. Some of the qualities to be judged are mental alertness, critical powers of assimilation, clear and logical exposition, balance of judgement, variety and depth of interest, ability for social cohesion and leadership, intellectual and moral integrity.

2. The technique of the interview is not that of a strict cross-examination but of a natural, though directed and purposive conversation which is intended to reveal the mental qualities of the candidate.

3. The interview test is not intended to be a test either of the specialised or general knowledge of the candidates which has been already tested through their written papers. Candidates are expected to have taken an intelligent interest not only in their special subjects of academic study but also in the events which are happening around them both within and outside their own state or country as well as in modern currents of thought and in new discoveries which should rouse the curiosity of well educated youth.

### Section-III

#### Syllabi for the Examination

#### Part-A

#### Preliminary Examination

The Examination shall comprise two compulsory papers of 200 marks each.

**Paper I - (200 marks) Duration : Two hours**

- Current events of national and international importance.
- History of India and Indian National Movement.
- Indian and World Geography - Physical, Social, Economic Geography of India and the World.
- Indian Polity and Governance - Constitution, Political System, Panchayati Raj, Public Policy, Rights Issues, etc.
- Economic and Social Development - Sustainable Development, Poverty, Inclusion, Demographics, Social Sector initiatives, etc.
- General issues on Environmental Ecology, Bio-diversity and Climate Change - that do not require subject specialisation
- General Science.

**Paper II- (200 marks) Duration: Two hours**

- Comprehension
- Interpersonal skills including communication skills;
- Logical reasoning and analytical ability
- Decision-making and problem-solving
- General mental ability
- Basic numeracy (numbers and their relations, orders of magnitude, etc.) (Class X level), Data interpretation (charts, graphs, tables, data sufficiency etc. - Class X level)
- English Language Comprehension skills (Class X level).

**Note 1 :** Questions relating to English Language Comprehension skills of Class X level (last item in the Syllabus of Paper-II) will be tested through passages from

English language only without providing Hindi translation thereof in the question paper.

**Note 2 :** The questions will be of multiple choice, objective type.

**Note 3: It is mandatory for the candidate to appear in both the Papers of Civil Services (Prelim) Examination for the purpose of evaluation. Therefore a candidate will be disqualified in case he/she does not appear in both the papers of Civil Services (Prelim) Examination.**

## Part-B

### Main Examination

The main Examination is intended to assess the overall intellectual traits and depth of understanding of candidates rather than merely the range of their information and memory.

The nature and standard of questions in the General Studies papers (Paper II to Paper V) will be such that a well-educated person will be able to answer them without any specialized study. The questions will be such as to test a candidate's general awareness of a variety of subjects, which will have relevance for a career in Civil Services. The questions are likely to test the candidate's basic understanding of all relevant issues and ability to analyze and take a view on conflicting socio-economic goals, objectives and demands. The candidates must give relevant, meaningful and succinct answers.

The scope of the syllabus for optional subject papers (Paper VI and Paper VII) for the examination is broadly of the honours degree level i.e. a level higher than the bachelors' degree and lower than the masters' degree. In the case of Engineering, Medical Science and law, the level corresponds to the bachelors' degree.

Syllabi of the papers included in the scheme of Civil Services (Main) Examination are given as follows:-

#### PAPER-I

**Essay:** Candidates will be required to write an essay on a specific topic. The choice of subjects will be given. They will be expected to keep closely to the subject of the essay to arrange their ideas in orderly fashion and to write concisely. Credit will be given for effective and exact expression.

**English Comprehension & English Precis** will be to test the English language Comprehension and English précis writing (at 10th standard level).

#### PAPER-II

**General Studies- I: Indian Heritage and Culture, History and Geography of the World and Society.**

- Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times.
- Modern Indian history from about the middle of the eighteenth century until the present- significant events, personalities, issues
- The Freedom Struggle - its various stages and important contributors /contributions from different parts of the country.
- Post-independence consolidation and reorganization within the country.
- History of the world will include events from 18th century such as industrial revolution, world wars, redrawal of national boundaries, colonization, decolonization, political philosophies like communism, capitalism, socialism etc.- their forms and effect on the society.
- Salient features of Indian Society, Diversity of India.
- Role of women and women's organization, population and associated issues, poverty and

developmental issues, urbanization, their problems and their remedies.

- Effects of globalization on Indian society
- Social empowerment, communalism, regionalism & secularism.
- Salient features of world's physical geography.
- Distribution of key natural resources across the world (including South Asia and the Indian sub-continent); factors responsible for the location of primary, secondary, and tertiary sector industries in various parts of the world (including India)
- Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., geographical features and their location- changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.

#### PAPER-III

**General Studies- II: Governance, Constitution, Polity, Social Justice and International relations.**

- Indian Constitution- historical underpinnings, evolution, features, amendments, significant provisions and basic structure.
- Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein.
- Separation of powers between various organs dispute redressal mechanisms and institutions.
- Comparison of the Indian constitutional scheme with that of other countries
- Parliament and State Legislatures - structure, functioning, conduct of business, powers & privileges and issues arising out of these.
- Structure, organization and functioning of the Executive and the Judiciary Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.
- Salient features of the Representation of People's Act.
- Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies.
- Statutory, regulatory and various quasi-judicial bodies
- Government policies and interventions for development in various sectors and issues arising out of their design and implementation.
- Development processes and the development industry- the role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders
- Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.
- Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.
- Issues relating to poverty and hunger.
- Important aspects of governance, transparency and accountability, e-governance- applications, models, successes, limitations, and potential; citizens charters, trans-

parency & accountability and institutional and other measures.

- Role of civil services in a democracy.
- India and its neighborhood- relations.
- Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests
- Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.
- Important International institutions, agencies and fora- their structure, mandate.

#### PAPER-IV

**General Studies-III: Technology, Economic Development, Bio diversity, Environment, Security and Disaster Management.**

- Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.
- Inclusive growth and issues arising from it.
- Government Budgeting.
- Major crops cropping patterns in various parts of the country, different types of irrigation and irrigation systems storage, transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers
- Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System- objectives, functioning, limitations, revamping; issues of buffer stocks and food security; Technology missions; economics of animal-rearing.
- Food processing and related industries in India- scope and significance, location, upstream and downstream requirements, supply chain management.
- Land reforms in India.
- Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.
- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.
- Investment models.
- Science and Technology- developments and their applications and effects in everyday life
- Achievements of Indians in science & technology; indigenization of technology and developing new technology.
- Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.
- Conservation, environmental pollution and degradation, environmental impact assessment
- Disaster and disaster management.
- Linkages between development and spread of extremism.
- Role of external state and non-state actors in creating challenges to internal security.
- Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention
- Security challenges and their management in border areas; linkages of organized crime with terrorism
- Various Security forces and agencies and their mandate

#### PAPER-V

**General Studies- IV: Ethics, Integrity, and Aptitude**

This paper will include questions to test the candidates' attitude and approach to issues relating to integrity, probity in public life and his problem solving approach to various issues and conflicts faced by him in dealing with society. Questions may utilise the case study approach to determine these aspects. The following broad areas will be covered.

- **Ethics and Human Interface:** Essence, determinants and consequences of Ethics in human actions; dimensions of ethics; ethics in private and public relationships. Human Values - lessons from the lives and teachings of great leaders, reformers and administrators; role of family, society and educational institutions in inculcating values.
- **Attitude:** content, structure, function; its influence and relation with thought and behaviour; moral and political attitudes; social influence and persuasion.
- Aptitude and foundational values for Civil Service, integrity, impartiality and non-partisanship, objectivity, dedication to public service, empathy, tolerance and compassion towards the weaker-sections.
- Emotional intelligence-concepts, and their utilities and application in administration and governance.
- Contributions of moral thinkers and philosophers from India and world.
- Public/Civil service values and Ethics in Public administration: Status and problems; ethical concerns and dilemmas in government and private institutions; laws, rules, regulations and conscience as sources of ethical guidance; accountability and ethical governance; strengthening of ethical and moral values in governance; ethical issues in international relations and funding; corporate governance.
- Probity in Governance: Concept of public service; Philosophical basis of governance and probity; Information sharing and transparency in government, Right to Information, Codes of Ethics, Codes of Conduct, Citizen's Charters, Work culture, Quality of service delivery, Utilization of public funds, challenges of corruption.
- Case Studies on above issues.

#### PAPER-VI & PAPER VII

**Optional Subject Papers I & II**

{Candidates may choose any optional subject from amongst the list of subjects given in para 2 below (Group 1). However, a candidate can opt for the literatures of a language, indicated in Group-2 below para 2, as an optional subject, only if the candidate has graduated in the literature of that particular language as the main subject}.

### AGRICULTURE

#### PAPER - I

Ecology and its relevance to man, natural resources, their sustainable management and conservation. Physical and social environment as factors of crop distribution and production. Agro ecology; cropping pattern as indicators of environments. Environmental pollution and associated hazards to crops, animals and humans. Climate change – International conventions and global initiatives. Green house effect and global warming. Advance tools for ecosystem analysis – Remote sensing (RS) and Geographic Information Systems (GIS). Cropping patterns in different agro-climatic zones of the country. Impact of high-yielding and short-duration varieties on

shifts in cropping patterns. Concepts of various cropping and farming systems. Organic and Precision farming. Package of practices for production of important cereals, pulses, oil seeds, fibres, sugar, commercial and fodder crops.

Important features and scope of various types of forestry plantations such as social forestry, agro-forestry, and natural forests. Propagation of forest plants. Forest products. Agro forestry and value addition. Conservation of forest flora and fauna.

Weeds, their characteristics, dissemination and association with various crops; their multiplications; cultural, biological, and chemical control of weeds.

Soil- physical, chemical and biological properties. Processes and factors of soil formation. Soils of India. Mineral and organic constituents of soils and their role in maintaining soil productivity. Essential plant nutrients and other beneficial elements in soils and plants. Principles of soil fertility, soil testing and fertilizer recommendations, integrated nutrient management. Biofertilizers. Losses of nitrogen in soil, nitrogen-use efficiency in submerged rice soils, nitrogen fixation in soils. Efficient phosphorus and potassium use. Problem soils and their reclamation. Soil factors affecting greenhouse gas emission.

Soil conservation, integrated watershed management. Soil erosion and its management. Dry land agriculture and its problems. Technology for stabilizing agriculture production in rain fed areas.

Water-use efficiency in relation to crop production, criteria for scheduling irrigations, ways and means of reducing run-off losses of irrigation water. Rainwater harvesting. Drip and sprinkler irrigation. Drainage of waterlogged soils, quality of irrigation water, effect of industrial effluents on soil and water pollution. Irrigation projects in India.

Farm management, scope, importance and characteristics, farm planning. Optimum resource use and budgeting. Economics of different types of farming systems. Marketing management – strategies for development, market intelligence. Price fluctuations and their cost; role of co-operatives in agricultural economy; types and systems of farming and factors affecting them. Agricultural price policy. Crop Insurance.

Agricultural extension, its importance and role, methods of evaluation of extension programmes, socio-economic survey and status of big, small and marginal farmers and landless agricultural labourers. Training programmes for extension workers. Role of Krishi Vigyan Kendra's (KVK) in dissemination of Agricultural technologies. Non Government Organization (NGO) and self-help group approach for rural development.

## PAPER - II

Cell structure, function and cell cycle. Synthesis, structure and function of genetic material. Laws of heredity. Chromosome structure, chromosomal aberrations, linkage and cross-over, and their significance in recombination breeding. Polyploidy, euploids and aneuploids. Mutations - and their role in crop improvement. Heritability, sterility and incompatibility, classification and their application in crop improvement. Cytoplasmic inheritance, sex-linked, sex-influenced and sex-limited characters.

History of plant breeding. Modes of reproduction, selfing and crossing techniques. Origin, evolution and domestication of crop plants, center of origin, law of homologous series, crop genetic resources-conservation and utilization. Application of principles of plant breeding, improvement of crop plants. Molecular markers and their application in plant improvement. Pure-line selection, pedigree, mass

and recurrent selections, combining ability, its significance in plant breeding. Heterosis and its exploitation. Somatic hybridization. Breeding for disease and pest resistance. Role of interspecific and intergeneric hybridization. Role of genetic engineering and biotechnology in crop improvement. Genetically modified crop plants.

Seed production and processing technologies. Seed certification, seed testing and storage. DNA finger printing and seed registration. Role of public and private sectors in seed production and marketing. Intellectual Property Rights (IPR) issues, WTO issues and its impact on Agriculture.

Principles of Plant Physiology with reference to plant nutrition, absorption, translocation and metabolism of nutrients. Soil - water- plant relationship.

Enzymes and plant pigments; photosynthesis- modern concepts and factors affecting the process, aerobic and anaerobic respiration; C3, C4 and CAM mechanisms. Carbohydrate, protein and fat metabolism. Growth and development; photoperiodism and vernalization. Plant growth substances and their role in crop production. Physiology of seed development and germination; dormancy. Stress physiology – draught, salt and water stress.

Major fruits, plantation crops, vegetables, spices and flower crops. Package practices of major horticultural crops. Protected cultivation and high tech horticulture. Post harvest technology and value addition of fruits and vegetables. Landscaping and commercial floriculture. Medicinal and aromatic plants. Role of fruits and vegetables in human nutrition. Diagnosis of pests and diseases of field crops, vegetables, orchard and plantation crops and their economic importance. Classification of pests and diseases and their management. Integrated pest and disease management. Storage pests and their management. Biological control of pests and diseases. Epidemiology and forecasting of major crop pests and diseases. Plant quarantine measures. Pesticides, their formulation and modes of action.

Food production and consumption trends in India. Food security and growing population – vision 2020. Reasons for grain surplus. National and international food policies. Production, procurement, distribution constraints. Availability of food grains, per capita expenditure on food. Trends in poverty, Public Distribution System and Below Poverty Line population, Targeted Public Distribution System (PDS), policy implementation in context to globalization. Processing constraints. Relation of food production to National Dietary Guidelines and food consumption pattern. Food based dietary approaches to eliminate hunger. Nutrient deficiency – Micro nutrient deficiency : Protein Energy Malnutrition or Protein Calorie Malnutrition (PEM or PCM), Micro nutrient deficiency and HRD in context of work capacity of women and children. Food grain productivity and food security.

## ANIMAL HUSBANDRY AND VETERINARY SCIENCE

### PAPER – I

#### 1. Animal Nutrition:

1.1 Partitioning of food energy within the animal. Direct and indirect calorimetry. Carbon – nitrogen balance and comparative slaughter methods. Systems for expressing energy value of foods in ruminants, pigs and poultry. Energy requirements for maintenance, growth, pregnancy, lactation, egg, wool, and meat production.

1.2 Latest advances in protein nutrition. Energy protein interrelationships. Evaluation of protein quality. Use of NPN compounds in ruminant diets. Protein

requirements for maintenance, growth, pregnancy, lactation, egg, wool and meat production.

1.3 Major and trace minerals - Their sources, physiological functions and deficiency symptoms. Toxic minerals. Mineral interactions. Role of fat-soluble and water – soluble vitamins in the body, their sources and deficiency symptoms.

1.4 Feed additives – methane inhibitors, probiotics, enzymes, antibiotics, hormones, oligosaccharides, antioxidants, emulsifiers, mould inhibitors, buffers etc. Use and abuse of growth promoters like hormones and antibiotics – latest concepts.

1.5 Conservation of fodders. Storage of feeds and feed ingredients. Recent advances in feed technology and feed processing. Anti – nutritional and toxic factors present in livestock feeds. Feed analysis and quality control. Digestibility trials – direct, indirect and indicator methods. Predicting feed intake in grazing animals.

1.6 Advances in ruminant nutrition. Nutrient requirements. Balanced rations. Feeding of calves, pregnant, work animals and breeding bulls. Strategies for feeding milch animals during different stages of lactation cycle. Effect of feeding on milk composition. Feeding of goats for meat and milk production. Feeding of sheep for meat and wool production.

1.7 Swine Nutrition. Nutrient requirements. Creep, starter, grower and finisher rations. Feeding of pigs for lean meat production. Low cost rations for swine.

1.8 Poultry nutrition. Special features of poultry nutrition. Nutrient requirements for meat and egg production. Formulation of rations for different classes of layers and broilers.

#### 2. Animal Physiology:

2.1 Physiology of blood and its circulation, respiration; excretion. Endocrine glands in health and disease.

2.2 Blood constituents - Properties and functions-blood cell formation-Haemoglobin synthesis and chemistry-plasma proteins production, classification and properties, coagulation of blood;Haemorrhagic disorders-anticoagulants-blood groups-Blood volume-Plasma expanders-Buffer systems in blood. Biochemical tests and their significance in disease diagnosis.

2.3 Circulation - Physiology of heart, cardiac cycle, heart sounds, heart beat, electrocardiograms. Work and efficiency of heart-effect of ions on heart function-metabolism of cardiac muscle, nervous and chemical regulation of heart, effect of temperature and stress on heart, blood pressure and hypertension, osmotic regulation, arterial pulse, vasomotor regulation of circulation, shock. Coronary and pulmonary circulation, Blood-Brain barrier- Cerebrospinal fluid- circulation in birds.

2.4 Respiration - Mechanism of respiration, Transport and exchange of gases –neural control of respiration-chemoreceptors-hypoxia-respiration in birds.

2.5 Excretion-Structure and function of kidney-formation of urine-methods of studying renal function-renal regulation of acid-base balance: physiological constituents of urine-renal failure-passive venous congestion-Urinary secretion in chicken-Sweat glands and their function. Bio-chemical test for urinary dysfunction.

2.6 Endocrine glands - Functional disorders their symptoms and diagnosis. Synthesis of hormones, mechanism and control of secretion- hormonal receptors-classification and function.

2.7 Growth and Animal Production-Prenatal and postnatal growth, maturation, growth curves, measures of growth, factors affecting growth, conformation, body composition, meat quality.

2.8 Physiology of Milk Production, Reproduction and Digestion- Current sta-

tus of hormonal control of mammary development, milk secretion and milk ejection, Male and Female reproductive organs, their components and functions. Digestive organs and their functions.

2.9 Environmental Physiology-Physiological relations and their regulation; mechanisms of adaptation, environmental factors and regulatory mechanisms involved in animal behaviour, climatology – various parameters and their importance. Animal ecology. Physiology of behaviour. Effect of stress on health and production.

#### 3. Animal Reproduction:

Semen quality- Preservation and Artificial Insemination- Components of semen, composition of spermatozoa, chemical and physical properties of ejaculated semen, factors affecting semen in vivo and in vitro. Factors affecting semen production and quality, preservation, composition of diluents, sperm concentration, transport of diluted semen. Deep freezing techniques in cows, sheep, goats, swine and poultry. Detection of oestrus and time of insemination for better conception. Anoestrus and repeat breeding.

#### 4. Livestock Production and Management:

4.1 Commercial Dairy Farming- Comparison of dairy farming in India with advanced countries. Dairying under mixed farming and as specialized farming, economic dairy farming. Starting of a dairy farm, Capital and land requirement, organization of the dairy farm. Opportunities in dairy farming, factors determining the efficiency of dairy animal. Herd recording, budgeting, cost of milk production, pricing policy; Personnel Management. Developing Practical and Economic rations for dairy cattle; supply of greens throughout the year, feed and fodder requirements of Dairy Farm. Feeding regimes for young stock and bulls, heifers and breeding animals; new trends in feeding young and adult stock; Feeding records.

4.2 Commercial meat, egg and wool production- Development of practical and economic rations for sheep, goats, pigs, rabbits and poultry. Supply of greens, fodder, feeding regimes for young and mature stock. New trends in enhancing production and management. Capital and land requirements and socio-economic concept.

4.3 Feeding and management of animals under drought, flood and other natural calamities.

#### 5. Genetics and Animal Breeding:

History of animal genetics. Mitosis and Meiosis: Mendelian inheritance; deviations to Mendelian genetics; Expression of genes; Linkage and crossing over; Sex determination, sex influenced and sex limited characters; Blood groups and polymorphism; Chromosome aberrations; Cytoplasmic inheritance. Gene and its structure; DNA as a genetic material; Genetic code and protein synthesis; Recombinant DNA technology. Mutations, types of mutations, methods for detecting mutations and mutation rate. Trans-gensis.

5.1 Population Genetics applied to Animal Breeding- Quantitative Vs. qualitative traits; Hardy Weinberg Law; Population Vs. individual; Gene and genotypic frequency; Forces changing gene frequency; Random drift and small populations; Theory of path coefficient; Inbreeding, methods of estimating inbreeding coefficient, systems of inbreeding, Effective population size; Breeding value, estimation of breeding value, dominance and epistatic deviation; Partitioning of variation; Genotype X environment correlation and genotype X environment interaction; role of multiple measurements; Resemblance between relatives.

5.2 Breeding Systems- Breeds of livest-

sock and Poultry. Heritability, repeatability and genetic and phenotypic correlations, their methods of estimation and precision of estimates; Aids to selection and their relative merits; Individual, pedigree, family and within family selection; Progeny testing; Methods of selection; Construction of selection indices and their uses; Comparative evaluation of genetic gains through various selection methods; Indirect selection and correlated response; Inbreeding, out breeding, upgrading, cross-breeding and synthesis of breeds; Crossing of inbred lines for commercial production; Selection for general and specific combining ability; Breeding for threshold characters. Sire index.

#### 6. Extension:

Basic philosophy, objectives, concept and principles of extension. Different Methods adopted to educate farmers under rural conditions. Generation of technology, its transfer and feedback. Problems and constraints in transfer of technology. Animal husbandry programmes for rural development.

### PAPER – II

#### 1. Anatomy, Pharmacology and Hygiene:

1.1 Histology and Histological Techniques: Paraffin embedding technique of tissue processing and H.E. staining -Freezing microtomy- Microscopy- Bright field microscope and electron microscope. Cytology-structure of cell, organelles and inclusions; cell division-cell types- Tissues and their classification-embryonic and adult tissues-Comparative histology of organs-Vascular. Nervous, digestive, respiratory, musculo- skeletal and urogenital systems- Endocrine glands -Integuments-sense organs.

1.2 Embryology – Embryology of vertebrates with special reference to aves and domestic mammals gametogenesis-fertilization-germ layers- foetal membranes and placentation-types of placenta in domestic mammals-Teratology-twins and twinning- organogenesis -germ layer derivatives- endodermal, mesodermal and ectodermal derivatives.

1.3 Bovine Anatomy- Regional Anatomy: Paranasal sinuses of OX- surface anatomy of salivary glands. Regional anatomy of infraorbital, maxillary, mandibuloalveolar, mental and cornual nerve block. Regional anatomy of paravertebral nerves, pudendal nerve, median ulnar and radial nerves-tibial, fibular and digital nerves-Cranial nerves-structures involved in epidural anaesthesia-superficial lymph nodes-surface anatomy of visceral organs of thoracic, abdominal and pelvic cavities-comparative features of locomotor apparatus and their application in the biomechanics of mammalian body.

1.4 Anatomy of Fowl- Musculo-skeletal system-functional anatomy in relation to respiration and flying, digestion and egg production.

1.5 Pharmacology and therapeutic drugs - Cellular level of pharmacodynamics and pharmacokinetics. Drugs acting on fluids and electrolyte balance. Drugs acting on Autonomic nervous system. Modern concepts of anaesthesia and dissociative anaesthetics. Autacoids. Antimicrobials and principles of chemotherapy in microbial infections. Use of hormones in therapeutics- chemotherapy of parasitic infections. Drug and economic concerns in the Edible tissues of animals- chemotherapy of Neoplastic diseases. Toxicity due to insecticides, plants, metals, non-metals, zootoxins and mycotoxins.

1.6 Veterinary Hygiene with reference to water, air and habitation - Assessment of pollution of water, air and soil- Importance of climate in animal health- effect of environment on animal function and performance-relationship between industrialization and animal agriculture- animal housing

requirements for specific categories of domestic animals viz. pregnant cows and sows, milking cows, broiler birds-stress, strain and productivity in relation to animal habitation.

#### 2. Animal Diseases:

2.1 Etiology, epidemiology pathogenesis, symptoms, postmortem lesions, diagnosis, and control of infectious diseases of cattle, sheep and goat, horses, pigs and poultry.

2.2 Etiology, epidemiology, symptoms, diagnosis, treatment of production diseases of cattle, horse, pig and poultry.

2.3 Deficiency diseases of domestic animals and birds.

2.4 Diagnosis and treatment of non-specific conditions like impaction, Bloat, Diarrhoea, Indigestion, dehydration, stroke, poisoning.

2.5 Diagnosis and treatment of neurological disorders.

2.6 Principles and methods of immunization of animals against specific diseases-herd immunity- disease free zones- 'zero' disease concept- chemoprophylaxis.

2.7 Anaesthesia- local, regional and general-preanesthetic medication.

Symptoms and surgical interference in fractures and dislocation. Hernia, choking abomasal displacement- Caesarian operations. Rumenotomy-Castrations.

2.8 Disease investigation techniques.- Materials for laboratory investigation- Establishment of Animal Health Centers- Disease free zone.

#### 3. Veterinary Public Health:

3.1 Zoonoses. - Classification, definition, role of animals and birds in prevalence and transmission of zoonotic diseases-occupational zoonotic diseases.

3.2 Epidemiology- Principle, definition of epidemiological terms, application of epidemiological measures in the study of diseases and disease control. Epidemiological features of air, water and food borne infections. OIE regulations, WTO, sanitary and phytosanitary measures.

3.3 Veterinary Jurisprudence- Rules and Regulations for improvement of animal quality and prevention of animal diseases - State and central rules for prevention of animal and animal product borne diseases- S P C A- Veterolegal cases- Certificates -Materials and Methods of collection of samples for veterolegal investigation.

#### 4. Milk and Milk Products Technology:

4.1 Market Milk: Quality, testing and grading of raw milk. Processing, packaging, storing, distribution, marketing, defects and their control. Preparation of the following milks: Pasteurized, standardized, toned, double toned, sterilized, homogenized, reconstituted, recombined and flavoured milks. Preparation of cultured milks, cultures and their management, yoghurt, Dahi, Lassi and Srikhand. Preparation of flavoured and sterilized milks. Legal standards. Sanitation requirement for clean and safe milk and for the milk plant equipment.

4.2 Milk Products Technology: Selection of raw materials, processing, storing, distributing and marketing milk products such as Cream, Butter, Ghee, Khoa, Channa, Cheese, condensed, evaporated, dried milk and baby food, Ice cream and Kulfi; by-products, whey products, butter milk, lactose and casein. Testing, grading, judging milk products- BIS and Agmark specifications, legal standards, quality control and nutritive properties. Packaging, processing and operational control. Costing of dairy products.

#### 5. Meat Hygiene and Technology:

5.1 Meat Hygiene.

5.1.1 Ante mortem care and management of food animals, stunning, slaughter and dressing operations; abattoir requirements and designs; Meat inspection procedures and judgment of carcass meat cuts- grading of carcass meat cuts- duties

and functions of Veterinarians in wholesome meat production.

5.1.2 Hygienic methods of handling production of meat- Spoilage of meat and control measures- Post - slaughter physicochemical changes in meat and factors that influence them- Quality improvement methods – Adulteration of meat and detection - Regulatory provisions in Meat trade and Industry.

5.2 Meat Technology.

5.2.1 Physical and chemical characteristics of meat- Meat emulsions- Methods of preservation of meat- Curing, canning, irradiation, packaging of meat and meat products, processing and formulations.

5.3 By- products- Slaughter house by-products and their utilization- Edible and inedible by products- Social and economic implications of proper utilization of slaughter house by-products- Organ products for food and pharmaceuticals.

5.4 Poultry Products Technology- Chemical composition and nutritive value of poultry meat, pre - slaughter care and management. Slaughtering techniques, inspection, preservation of poultry meat and products. Legal and BIS standards. Structure, composition and nutritive value of eggs. Microbial spoilage. Preservation and maintenance. Marketing of poultry meat, eggs and products. Value added meat products.

5.5 Rabbit/Fur Animal farming - Rabbit meat production. Disposal and utilization of fur and wool and recycling of waste by products. Grading of wool.

## ANTHROPOLOGY

### PAPER - I

1.1 Meaning, scope and development of Anthropology.

1.2 Relationships with other disciplines: Social Sciences, Behavioural Sciences, Life Sciences, Medical Sciences, Earth Sciences and Humanities.

1.3 Main branches of Anthropology, their scope and relevance:

- Social- cultural Anthropology.
- Biological Anthropology.
- Archaeological Anthropology.
- Linguistic Anthropology.

1.4 Human Evolution and emergence of Man:

- Biological and Cultural factors in human evolution.
- Theories of Organic Evolution (Pre- Darwinian, Darwinian and Post-Darwinian).
- Synthetic theory of evolution; Brief outline of terms and concepts of evolutionary biology (Doll's rule, Cope's rule, Gause's rule, parallelism, convergence, adaptive radiation, and mosaic evolution).

1.5 Characteristics of Primates; Evolutionary Trend and Primate Taxonomy; Primate Adaptations; (Arboreal and Terrestrial) Primate Taxonomy; Primate Behaviour; Tertiary and Quaternary fossil primates; Living Major Primates; Comparative Anatomy of Man and Apes; Skeletal changes due to erect posture and its implications.

1.6 Phylogenetic status, characteristics and geographical distribution of the following:

- Plio-pleistocene hominids in South and East Africa - Australopithecines.
- Homo erectus: Africa (Paranthropus), Europe (Homo erectus heidelbergensis), Asia (Homo erectus javanicus, Homo erectus pekinensis).
- Neanderthal Man- La-Chapelle-aux-saints (Classical type), Mt. Carmel (Progressive type).
- Rhodesian man.
- Homo sapiens — Cromagnon, Grimaldi and Chancelade.

1.7 The biological basis of life: The Cell, DNA structure and replication, Protein Synthesis, Gene, Mutation, Chromosomes, and Cell Division.

1.8 (a) Principles of Prehistoric Archaeology. Chronology: Relative and Absolute Dating methods.

(b) Cultural Evolution- Broad Outlines of Prehistoric cultures:

- Paleolithic
- Mesolithic
- Neolithic
- Chalcolithic
- Copper-Bronze Age
- Iron Age

2.1 The Nature of Culture: The concept and characteristics of culture and civilization; Ethnocentrism vis-à-vis cultural Relativism.

2.2 The Nature of Society: Concept of Society; Society and Culture; Social Institutions; Social groups; and Social stratification.

2.3 Marriage: Definition and universality; Laws of marriage (endogamy, exogamy, hypergamy, hypogamy, incest taboo); Types of marriage (monogamy, polygamy, polyandry, group marriage). Functions of marriage; Marriage regulations (preferential, prescriptive and proscriptive); Marriage payments (bride wealth and dowry).

2.4 Family: Definition and universality; Family, household and domestic groups; functions of family; Types of family (from the perspectives of structure, blood relation, marriage, residence and succession); Impact of urbanization, industrialization and feminist movements on family.

2.5 Kinship: Consanguinity and Affinity; Principles and types of descent (Unilineal, Double, Bilateral, Ambilineal); Forms of descent groups (lineage, clan, phratry, moiety and kindred); Kinship terminology (descriptive and classificatory); Descent, Filiation and Complimentary Filiation; Descent and Alliance.

3. Economic organization: Meaning, scope and relevance of economic anthropology; Formalist and Substantivist debate; Principles governing production, distribution and exchange (reciprocity, redistribution and market), in communities, subsisting on hunting and gathering, fishing, swiddening, pastoralism, horticulture, and agriculture; globalization and indigenous economic systems.

4. Political organization and Social Control: Band, tribe, chiefdom, kingdom and state; concepts of power, authority and legitimacy; social control, law and justice in simple societies.

5. Religion: Anthropological approaches to the study of religion (evolutionary, psychological and functional); monotheism and polytheism; sacred and profane; myths and rituals; forms of religion in tribal and peasant societies (animism, animatism, fetishism, naturism and totemism); religion, magic and science distinguished; magico- religious functionaries (priest, shaman, medicine man, sorcerer and witch).

#### 6. Anthropological theories:

- Classical evolutionism (Tylor, Morgan and Frazer)
- Historical particularism (Boas); Diffusionism (British, German and American)
- Functionalism (Malinowski); Structural- functionalism (Radcliffe-Brown)
- Structuralism (L'evi - Strauss and E. Leach)
- Culture and personality (Benedict, Mead, Linton, Kardiner and Cora - du Bois).
- Neo - evolutionism (Childe, White, Steward, Sahlins and Service)
- Cultural materialism (Harris)
- Symbolic and interpretive theories (Turner, Schneider and Geertz)
- Cognitive theories (Tyler, Conklin)
- Post- modernism in anthropology

7. Culture, language and communication: Nature, origin and characteristics of language; verbal and non-verbal commu-



nication; social context of language use.

### 8. Research methods in anthropology:

- Fieldwork tradition in anthropology
- Distinction between technique, method and methodology
- Tools of data collection: observation, interview, schedules, questionnaire, Case study, genealogy, life-history, oral history, secondary sources of information, participatory methods.
- Analysis, interpretation and presentation of data.

**9.1 Human Genetics :** Methods and Application: Methods for study of genetic principles in man-family study (pedigree analysis, twin study, foster child, co-twin method, cytogenetic method, chromosomal and karyo-type analysis), biochemical methods, immunological methods, D.N.A. technology and recombinant technologies.

**9.2 Mendelian genetics in man-family study,** single factor, multifactor, lethal, sub-lethal and polygenic inheritance in man.

**9.3 Concept of genetic polymorphism and selection,** Mendelian population, Hardy-Weinberg law; causes and changes which bring down frequency – mutation, isolation, migration, selection, inbreeding and genetic drift. Consanguineous and non-consanguineous mating, genetic load, genetic effect of consanguineous and cousin marriages.

**9.4 Chromosomes and chromosomal aberrations in man,** methodology.

(a) Numerical and structural aberrations (disorders).

(b) Sex chromosomal aberrations – Klinefelter (XXY), Turner (XO), Super female (XXX), intersex and other syndromic disorders.

(c) Autosomal aberrations – Down syndrome, Patau, Edward and Cri-du-chat syndromes.

(d) Genetic imprints in human disease, genetic screening, genetic counseling, human DNA profiling, gene mapping and genome study.

**9.5 Race and racism,** biological basis of morphological variation of non-metric and metric characters. Racial criteria, racial traits in relation to heredity and environment; biological basis of racial classification, racial differentiation and race crossing in man.

**9.6 Age, sex and population variation as genetic marker-** ABO, Rh blood groups, HLA Hp, transferrin, Gm, blood enzymes. Physiological characteristics-Hb level, body fat, pulse rate, respiratory functions and sensory perceptions in different cultural and socio-economic groups.

**9.7 Concepts and methods of Ecological Anthropology.** Bio-cultural Adaptations – Genetic and Non-genetic factors. Man's physiological responses to environmental stresses: hot desert, cold, high altitude climate.

**9.8 Epidemiological Anthropology:** Health and disease. Infectious and non-infectious diseases. Nutritional deficiency related diseases.

**10. Concept of human growth and development:** stages of growth - pre-natal, natal, infant, childhood, adolescence, maturity, senescence.

- Factors affecting growth and development genetic, environmental, biochemical, nutritional, cultural and socio-economic.

- Ageing and senescence. Theories and observations - biological and chronological longevity. Human physique and somatotypes. Methodologies for growth studies.

**11.1 Relevance of menarche, menopause and other bioevents to fertility.** Fertility patterns and differentials.

**11.2 Demographic theories-** biological, social and cultural.

**11.3 Biological and socio-ecological factors influencing fecundity, fertility, natality**

and mortality.

**12. Applications of Anthropology:** Anthropology of sports, Nutritional anthropology, Anthropology in designing of defence and other equipments, Forensic Anthropology, Methods and principles of personal identification and reconstruction, Applied human genetics – Paternity diagnosis, genetic counseling and eugenics, DNA technology in diseases and medicine, serogenetics and cytogenetics in reproductive biology.

### PAPER – II

**1.1 Evolution of the Indian Culture and Civilization — Prehistoric (Palaeolithic, Mesolithic, Neolithic and Neolithic - Chalcolithic). Protohistoric (Indus Civilization):** Pre- Harappan, Harappan and post- Harappan cultures. Contributions of tribal cultures to Indian civilization.

**1.2 Palaeo – anthropological evidences from India with special reference to Siwaliks and Narmada basin (Ramapithecus, Sivapithecus and Narmada Man).**

**1.3 Ethno-archaeology in India :** The concept of ethno-archaeology; Survivals and Parallels among the hunting, foraging, fishing, pastoral and peasant communities including arts and crafts producing communities.

**2. Demographic profile of India — Ethnic and linguistic elements in the Indian population and their distribution. Indian population - factors influencing its structure and growth.**

**3.1 The structure and nature of traditional Indian social system — Varnashram, Purushartha, Karma, Rina and Rebirth.**

**3.2 Caste system in India- structure and characteristics, Varna and caste, Theories of origin of caste system, Dominant caste, Caste mobility, Future of caste system, Jajmani system, Tribe-caste continuum.**

**3.3 Sacred Complex and Nature- Man-Spirit Complex.**

**3.4 Impact of Buddhism, Jainism, Islam and Christianity on Indian society.**

**4. Emergence and growth of anthropology in India-Contributions of the 18th, 19th and early 20th Century scholar-administrators. Contributions of Indian anthropologists to tribal and caste studies.**

**5.1 Indian Village: Significance of village study in India; Indian village as a social system; Traditional and changing patterns of settlement and inter-caste relations; Agrarian relations in Indian villages; Impact of globalization on Indian villages.**

**5.2 Linguistic and religious minorities and their social, political and economic status.**

**5.3 Indigenous and exogenous processes of socio-cultural change in Indian society: Sanskritization, Westernization, Modernization; Inter-play of little and great traditions; Panchayati raj and social change; Media and social change.**

**6.1 Tribal situation in India – Bio-genetic variability, linguistic and socio-economic characteristics of tribal populations and their distribution.**

**6.2 Problems of the tribal Communities — land alienation, poverty, indebtedness, low literacy, poor educational facilities, unemployment, underemployment, health and nutrition.**

**6.3 Developmental projects and their impact on tribal displacement and problems of rehabilitation. Development of forest policy and tribals. Impact of urbanization and industrialization on tribal populations.**

**7.1 Problems of exploitation and deprivation of Scheduled Castes, Scheduled Tribes and Other Backward Classes. Constitutional safeguards for Scheduled Tribes and Scheduled Castes.**

**7.2 Social change and contemporary tribal societies: Impact of modern democratic institutions, development programmes and welfare measures on tribals and**

weaker sections.

**7.3 The concept of ethnicity; Ethnic conflicts and political developments; Unrest among tribal communities; Regionalism and demand for autonomy; Pseudo-tribalism; Social change among the tribes during colonial and post-Independent India.**

**8.1 Impact of Hinduism, Buddhism, Christianity, Islam and other religions on tribal societies.**

**8.2 Tribe and nation state — a comparative study of tribal communities in India and other countries.**

**9.1 History of administration of tribal areas, tribal policies, plans, programmes of tribal development and their implementation. The concept of PTGs (Primitive Tribal Groups), their distribution, special programmes for their development. Role of N.G.O.s in tribal development.**

**9.2 Role of anthropology in tribal and rural development.**

**9.3 Contributions of anthropology to the understanding of regionalism, communalism, and ethnic and political movements.**

### BOTANY

#### PAPER – I

#### 1. Microbiology and Plant Pathology:

Structure and reproduction/multiplication of viruses, viroids, bacteria, fungi and mycoplasma; Applications of microbiology in agriculture, industry, medicine and in control of soil and water pollution; Prion and Prion hypothesis.

Important crop diseases caused by viruses, bacteria, mycoplasma, fungi and nematodes; Modes of infection and dissemination; Molecular basis of infection and disease resistance/defence; Physiology of parasitism and control measures; Fungal toxins; Modelling and disease forecasting; Plant quarantine.

#### 2. Cryptogams:

Algae, fungi, lichens, bryophytes, pteridophytes - structure and reproduction from evolutionary viewpoint; Distribution of Cryptogams in India and their ecological and economic importance.

#### 3. Phanerogams:

Gymnosperms: Concept of Progymnosperms; Classification and distribution of gymnosperms; Salient features of Cycadales, Ginkgoales, Coniferales and Gnetales, their structure and reproduction; General account of Cycadofilicales, Bennettitales and Cordaitales; Geological time scale; Type of fossils and their study techniques.

Angiosperms: Systematics, anatomy, embryology, palynology and phylogeny. Taxonomic hierarchy; International Code of Botanical Nomenclature; Numerical taxonomy and chemotaxonomy; Evidence from anatomy, embryology and palynology.

Origin and evolution of angiosperms; Comparative account of various systems of classification of angiosperms; Study of angiospermic families – Mangnoliaceae, Ranunculaceae, Brassicaceae, Rosaceae, Fabaceae, Euphorbiaceae, Malvaceae, Dipterocarpaceae, Apiaceae, Asclepiadaceae, Verbenaceae, Solanaceae, Rubiaceae, Cucurbitaceae, Astera-ceae, Poaceae, Arecaceae, Liliaceae, Musaceae and Orchidaceae. Stomata and their types; Glandular and non-glandular trichomes; Unusual secondary growth; Anatomy of C3 and C4 plants; Xylem and phloem differentiation; Wood anatomy.

Development of male and female gametophytes, pollination, fertilization; Endosperm - its development and function; Patterns of embryo development; Polyembryony and apomixes; Applications of palynology; Experimental embryology including pollen storage and test-tube fertilization.

#### 4. Plant Resource Development:

Domestication and introduction of plants; Origin of cultivated plants; Vavilov's centres of origin; Plants as sources for food,

fodder, fibre, spices, beverages, edible oils, drugs, narcotics, insecticides, timber, gums, resins and dyes, latex, cellulose, starch and its products; Perfumery; Importance of Ethnobotany in Indian context; Energy plantations; Botanical Gardens and Herbaria.

#### 5. Morphogenesis:

Totipotency, polarity, symmetry and differentiation; Cell, tissue, organ and protoplast culture; Somatic hybrids and Cybrids; Micropropagation; Somaclonal variation and its applications; Pollen haploids, embryo rescue methods and their applications.

#### PAPER – II

#### 1. Cell Biology:

Techniques of cell biology; Prokaryotic and eukaryotic cells - structural and ultrastructural details; Structure and function of extracellular matrix (cell wall), membranes-cell adhesion, membrane transport and vesicular transport; Structure and function of cell organelles (chloroplasts, mitochondria, ER, dictyosomes, ribosomes, endosomes, lysosomes, peroxisomes); Cytoskeleton and microtubules; Nucleus, nucleolus, nuclear pore complex; Chromatin and nucleosome; Cell signalling and cell receptors; Signal transduction; Mitosis and meiosis; Molecular basis of cell cycle; Numerical and structural variations in chromosomes and their significance; Chromatin organization and packaging of genome; Polytene chromosomes; B-chromosomes – structure, behaviour and significance.

#### 2. Genetics, Molecular Biology and Evolution:

Development of genetics; Gene versus allele concepts (Pseudoalleles); Quantitative genetics and multiple factors; Incomplete dominance, polygenic inheritance, multiple alleles; Linkage and crossing over; Methods of gene mapping, including molecular maps (idea of mapping function); Sex chromosomes and sex-linked inheritance, sex determination and molecular basis of sex differentiation; Mutations (biochemical and molecular basis); Cytoplasmic inheritance and cytoplasmic genes (including genetics of male sterility). Structure and synthesis of nucleic acids and proteins; Genetic code and regulation of gene expression; Gene silencing; Multigene families; Organic evolution – evidences, mechanism and theories. Role of RNA in origin and evolution.

#### 3. Plant Breeding, Biotechnology and Biostatistics:

Methods of plant breeding – introduction, selection and hybridization (pedigree, backcross, mass selection, bulk method); Mutation, polyploidy, male sterility and heterosis breeding; Use of apomixes in plant breeding; DNA sequencing; Genetic engineering – methods of transfer of genes; Transgenic crops and biosafety aspects; Development and use of molecular markers in plant breeding; Tools and techniques - probe, southern blotting, DNA fingerprinting, PCR and FISH. Standard deviation and coefficient of variation (CV); Tests of significance (Z-test, t-test and chi-square test); Probability and distributions (normal, binomial and Poisson); Correlation and regression.

#### 4. Physiology and Biochemistry:

Water relations, mineral nutrition and ion transport, mineral deficiencies; Photosynthesis – photochemical reactions; photophosphorylation and carbon fixation pathways; C3, C4 and CAM pathways; Mechanism of phloem transport; Respiration (anerobic and aerobic, including fermentation) – electron transport chain and oxidative phosphorylation; Photorespiration; Chemiosmotic theory and ATP synthesis; Lipid metabolism; Nitrogen fixation and nitrogen metabolism; Enzymes, coenzymes; Energy transfer and energy conservation;

Importance of secondary metabolites; Pigments as photoreceptors (plastidial pigments and phytochrome); Plant movements; Photoperiodism and flowering, vernalization, senescence; Growth substances – their chemical nature, role and applications in agri-horticulture; Growth indices, growth movements; Stress physiology (heat, water, salinity, metal); Fruit and seed physiology; Dormancy, storage and germination of seed; Fruit ripening – its molecular basis and manipulation.

### 5. Ecology and Plant Geography:

Concept of ecosystem; Ecological factors; Concepts and dynamics of community; Plant succession; Concept of biosphere; Ecosystems; Conservation; Pollution and its control (including phytoremediation); Plant indicators; Environment (Protection) Act. Forest types of India - Ecological and economic importance of forests, afforestation, deforestation and social forestry; Endangered plants, endemism, IUCN categories, Red Data Books; Biodiversity and its conservation; Protected Area Network; Convention on Biological Diversity; Farmers' Rights and Intellectual Property Rights; Concept of Sustainable Development; Biogeochemical cycles; Global warming and climatic change; Invasive species; Environmental Impact Assessment; Phytogeographical regions of India.

## CHEMISTRY

### PAPER - I

#### 1. Atomic Structure:

Heisenberg's uncertainty principle, Schrodinger wave equation (time independent); Interpretation of wave function, particle in one-dimensional box, quantum numbers, hydrogen atom wave functions; Shapes of s, p and d orbitals.

#### 2. Chemical Bonding:

Ionic bond, characteristics of ionic compounds, lattice energy, Born-Haber cycle; covalent bond and its general characteristics, polarities of bonds in molecules and their dipole moments; Valence bond theory, concept of resonance and resonance energy; Molecular orbital theory (LCAO method); bonding in  $H_2^+$ ,  $H_2$ ,  $He_2^+$  to  $Ne_2$ , NO, CO, HF, and  $CN^-$ ; Comparison of valence bond and molecular orbital theories, bond order, bond strength and bond length.

#### 3. Solid State:

Crystal systems; Designation of crystal faces, lattice structures and unit cell; Bragg's law; X-ray diffraction by crystals; Close packing, radius ratio rules, calculation of some limiting radius ratio values; Structures of NaCl, ZnS, CsCl and  $CaF_2$ ; Stoichiometric and nonstoichiometric defects, impurity defects, semi-conductors.

#### 4. The Gaseous State and Transport Phenomenon:

Equation of state for real gases, intermolecular interactions and critical phenomena and liquefaction of gases, Maxwell's distribution of speeds, intermolecular collisions, collisions on the wall and effusion; Thermal conductivity and viscosity of ideal gases.

#### 5. Liquid State:

Kelvin equation; Surface tension and surface energy, wetting and contact angle, interfacial tension and capillary action.

#### 6. Thermodynamics:

Work, heat and internal energy; first law of thermodynamics.

Second law of thermodynamics; entropy as a state function, entropy changes in various processes, entropy-reversibility and irreversibility, Free energy functions; Thermodynamic equation of state; Maxwell relations; Temperature, volume and pressure dependence of U, H, A, G,  $C_p$  and  $C_v$   $\alpha$  and  $\beta$ ; J-T effect and inversion temperature; criteria for equilibrium, relation between equilibrium constant and thermodynamic quantities; Nernst

heat theorem, introductory idea of third law of thermodynamics.

#### 7. Phase Equilibria and Solutions:

Clausius-Clapeyron equation; phase diagram for a pure substance; phase equilibria in binary systems, partially miscible liquids—upper and lower critical solution temperatures; partial molar quantities, their significance and determination; excess thermodynamic functions and their determination.

#### 8. Electrochemistry:

Debye-Huckel theory of strong electrolytes and Debye-Huckel limiting Law for various equilibrium and transport properties.

Galvanic cells, concentration cells; electrochemical series, measurement of e.m.f. of cells and its applications fuel cells and batteries.

Processes at electrodes; double layer at the interface; rate of charge transfer, current density; overpotential; electro-analytical techniques: Polarography, amperometry, ion selective electrodes and their uses.

#### 9. Chemical Kinetics:

Differential and integral rate equations for zeroth, first, second and fractional order reactions; Rate equations involving reverse, parallel, consecutive and chain reactions; branching chain and explosions; effect of temperature and pressure on rate constant; Study of fast reactions by stop-flow and relaxation methods; Collisions and transition state theories.

#### 10. Photochemistry:

Absorption of light; decay of excited state by different routes; photochemical reactions between hydrogen and halogens and their quantum yields.

#### 11. Surface Phenomena and Catalysis:

Absorption from gases and solutions on solid adsorbents, Langmuir and B.E.T. adsorption isotherms; determination of surface area, characteristics and mechanism of reaction on heterogeneous catalysts.

#### 12. Bio-inorganic Chemistry:

Metal ions in biological systems and their role in ion transport across the membranes (molecular mechanism), oxygen-uptake proteins, cytochromes and ferredoxins.

#### 13. Coordination Compounds:

(i) Bonding theories of metal complexes; Valence bond theory, crystal field theory and its modifications; applications of theories in the explanation of magnetism and electronic spectra of metal complexes.

(ii) Isomerism in coordination compounds; IUPAC nomenclature of coordination compounds; stereochemistry of complexes with 4 and 6 coordination numbers; chelate effect and polynuclear complexes; trans effect and its theories; kinetics of substitution reactions in square-planar complexes; thermodynamic and kinetic stability of complexes.

(iii) EAN rule, Synthesis structure and reactivity of metal carbonyls; carboxylate anions, carbonyl hydrides and metal nitrosyl compounds.

(iv) Complexes with aromatic systems, synthesis, structure and bonding in metal olefin complexes, alkyne complexes and cyclopentadienyl complexes; coordinative unsaturation, oxidative addition reactions, insertion reactions, fluxional molecules and their characterization; Compounds with metal-metal bonds and metal atom clusters.

#### 14. Main Group Chemistry:

Boranes, borazines, phosphazenes and cyclic phosphazene, silicates and silicic acids, Interhalogen compounds; Sulphur – nitrogen compounds, noble gas compounds.

#### 15. General Chemistry of 'f' Block Elements:

Lanthanides and actinides; separation, oxidation states, magnetic and spectral properties; lanthanide contraction.

### PAPER - II

#### 1. Delocalised Covalent Bonding:

Aromaticity, anti-aromaticity; annulenes, azulenes, tropolones, fulvenes, syndones.

#### 2. (i) Reaction Mechanisms:

General methods (both kinetic and non-kinetic) of study of mechanism of organic reactions: isotopic method, cross-over experiment, intermediate trapping, stereochemistry; energy of activation; thermodynamic control and kinetic control of reactions.

(ii) **Reactive Intermediates:** Generation, geometry, stability and reactions of carbenium ions and carbanions, free radicals, carbenes, benzynes and nitrenes.

(iii) **Substitution Reactions:**  $S_N1$ ,  $S_N2$  and  $S_Ni$  mechanisms; neighbouring group participation; electrophilic and nucleophilic reactions of aromatic compounds including heterocyclic compounds—pyrrole, furan, thiophene and indole.

(iv) **Elimination Reactions:** E1, E2 and E1cb mechanisms; orientation in E2 reactions—Saytzeff and Hoffmann; pyrolytic syn elimination – Chugaev and Cope eliminations.

(v) **Addition Reactions:** Electrophilic addition to C=C and C=C; nucleophilic addition to C=O, C=N, conjugated olefins and carbonyls.

#### (vi) Reactions and Rearrangements:

(a) Pinacol-pinacolone, Hoffmann, Beckmann, Baeyer-Villiger, Favorskii, Fries, Claisen, Cope, Stevens and Wagner-Meerwein rearrangements.

(b) Aldol condensation, Claisen condensation, Dieckmann, Perkin, Knoevenagel, Wittig, Clemmensen, Wolff-Kishner, Cannizzaro and von Richter reactions; Stobbe, benzoin and acyloin condensations; Fischer indole synthesis, Skraup synthesis, Bischler-Napieralski, Sandmeyer, Reimer-Tiemann and Reformersky reactions.

#### 3. Pericyclic Reactions:

Classification and examples; Woodward-Hoffmann rules – electrocyclic reactions, cycloaddition reactions [2+2 and 4+2] and sigmatropic shifts [1, 3; 3, 3 and 1, 5] FMO approach.

#### 4. (i) Preparation and Properties of Polymers:

Organic polymers—polyethylene, polystyrene, polyvinyl chloride, teflon, nylon, terylene, synthetic and natural rubber.

(ii) **Biopolymers:** Structure of proteins, DNA and RNA.

#### 5. Synthetic Uses of Reagents:

$OsO_4$ ,  $HIO_4$ ,  $CrO_3$ ,  $Pb(OAc)_4$ ,  $SeO_2$ ,  $NBS$ ,  $B_2H_6$ , Na-Liquid  $NH_3$ ,  $LiAlH_4$ ,  $NbH_4$ , n-BuLi and MCPBA.

#### 6. Photochemistry:

Photochemical reactions of simple organic compounds, excited and ground states, singlet and triplet states, Norrish-Type I and Type II reactions.

#### 7. Spectroscopy:

Principle and applications in structure elucidation:

(i) **Rotational:** Diatomic molecules; isotopic substitution and rotational constants.

(ii) **Vibrational:** Diatomic molecules, linear triatomic molecules, specific frequencies of functional groups in polyatomic molecules.

(iii) **Electronic:** Singlet and triplet states;  $N \rightarrow \pi^*$  and  $\pi \pi^* \rightarrow$  transitions; application to conjugated double bonds and conjugated carbonyls—Woodward-Fieser rules; Charge transfer spectra.

(iv) **Nuclear Magnetic Resonance (1H NMR):** Basic principle; chemical shift and spin-spin interaction and coupling constants.

(v) **Mass Spectrometry:** Parent peak, base peak, metastable peak, McLafferty rearrangement.

## CIVIL ENGINEERING

### PAPER - I

#### 1. Engineering Mechanics, Strength of Materials and Structural Analysis:

##### 1.1 Engineering Mechanics:

Units and Dimensions, SI Units, Vectors,

Concept of Force, Concept of particle and rigid body. Concurrent, Non Concurrent and parallel forces in a plane, moment of force, free body diagram, conditions of equilibrium, Principle of virtual work, equivalent force system.

First and Second Moment of area, Mass moment of Inertia.

Static Friction.

Kinematics and Kinetics:

Kinematics in Cartesian Co-ordinates, motion under uniform and nonuniform acceleration, motion under gravity. Kinetics of particle: Momentum and Energy principles, collision of elastic bodies, rotation of rigid bodies.

##### 1.2 Strength of Materials:

Simple Stress and Strain, Elastic constants, axially loaded compression members, Shear force and bending moment, theory of simple bending, Shear Stress distribution across cross sections, Beams of uniform strength.

Deflection of beams: Macaulay's method, Mohr's Moment area method, Conjugate beam method, unit load method. Torsion of Shafts, Elastic stability of columns, Euler's Rankine's and Secant formulae.

##### 1.3 Structural Analysis:

Castigliano's theorems I and II, unit load method of consistent deformation applied to beams and pin jointed trusses. Slope-deflection, moment distribution, Rolling loads and Influences lines: Influences lines for Shear Force and Bending moment at a section of beam. Criteria for maximum shear force and bending Moment in beams traversed by a system of moving loads. Influences lines for simply supported plane pin jointed trusses.

Arches: Three hinged, two hinged and fixed arches, rib shortening and temperature effects.

Matrix methods of analysis: Force method and displacement method of analysis of indeterminate beams and rigid frames.

Plastic Analysis of beams and frames: Theory of plastic bending, plastic analysis, statical method, Mechanism method. Unsymmetrical bending: Moment of inertia, product of inertia, position of Neutral Axis and Principle axes, calculation of bending stresses.

#### 2. Design of Structures: Steel, Concrete and Masonry Structures:

##### 2.1 Structural Steel Design:

Structural Steel: Factors of safety and load factors. Riveted, bolted and welded joints and connections. Design of tension and compression member, beams of built up section, riveted and welded plate girders, gantry girders, stanchions with battens and lacings.

##### 2.2 Design of Concrete and Masonry Structures:

Concept of mix design. Reinforced Concrete: Working Stress and Limit State method of design—Recommendations of I.S. codes Design of one way and two way slabs, stair-case slabs, simple and continuous beams of rectangular, T and L sections. Compression members under direct load with or without eccentricity, Cantilever and Counter fort type retaining walls.

Water tanks: Design requirements for Rectangular and circular tanks resting on ground.

Prestressed concrete: Methods and systems of prestressing, anchorages, Analysis and design of sections for flexure based on working stress, loss of prestress.

Design of brick masonry as per I.S. Codes

#### 3. Fluid Mechanics, Open Channel Flow and Hydraulic Machines:

##### 3.1 Fluid Mechanics:

Fluid properties and their role in fluid motion, fluid statics including forces act-

ing on plane and curved surfaces. Kinematics and Dynamics of Fluid flow: Velocity and accelerations, stream lines, equation of continuity, irrotational and rotational flow, velocity potential and stream functions.

Continuity, momentum and energy equation, Navier-Stokes equation, Euler's equation of motion, application to fluid flow problems, pipe flow, sluice gates, weirs.

### 3.2 Dimensional Analysis and Similitude:

Buckingham's Pi-theorem, dimensionless parameters.

### 3.3 Laminar Flow:

Laminar flow between parallel, stationary and moving plates, flow through tube.

### 3.4 Boundary layer:

Laminar and turbulent boundary layer on a flat plate, laminar sub layer, smooth and rough boundaries, drag and lift.

Turbulent flow through pipes: Characteristics of turbulent flow, velocity distribution and variation of pipe friction factor, hydraulic grade line and total energy line.

### 3.5 Open channel flow:

Uniform and non-uniform flows, momentum and energy correction factors, specific energy and specific force, critical depth, rapidly varied flow, hydraulic jump, gradually varied flow, classification of surface profiles, control section, step method of integration of varied flow equation.

### 3.6 Hydraulic Machines and Hydropower:

Hydraulic turbines, types classification, Choice of turbines, performance parameters, controls, characteristics, specific speed.

Principles of hydropower development.

### 4. Geotechnical Engineering:

Soil Type and structure – gradation and particle size distribution – consistency limits.

Water in soil – capillary and structural – effective stress and pore water pressure – permeability concept – field and laboratory determination of permeability – Seepage pressure – quick sand conditions – Shear strength determination – Mohr Coulomb concept.

Compaction of soil – Laboratory and field tests.

Compressibility and consolidation concept – consolidation theory – consolidation settlement analysis.

Earth pressure theory and analysis for retaining walls, Application for sheet piles and Braced excavation.

Bearing capacity of soil – approaches for analysis – Field tests – settlement analysis – stability of slope of earth walk.

Subsurface exploration of soils – methods

Foundation – Type and selection criteria for foundation of structures – Design criteria for foundation – Analysis of distribution of stress for footings and pile – pile group action-pile load test.

Ground improvement techniques.

#### PAPER - II

### 1. Construction Technology, Equipment, Planning and Management:

#### 1.1 Construction Technology: Engineering Materials:

Physical properties of construction materials with respect to their use in construction - Stones, Bricks and Tiles; Lime, Cement, different types of Mortars and Concrete.

Specific use of ferro cement, fibre reinforced C.C, High strength concrete.

Timber, properties and defects - common preservation treatments.

Use and selection of materials for specific use like Low Cost Housing, Mass Housing, High Rise Buildings.

#### 1.2 Construction:

Masonry principles using Brick, stone, Blocks – construction detailing and

strength characteristics.

Types of plastering, pointing, flooring, roofing and construction features.

Common repairs in buildings.

Principles of functional planning of building for residents and specific use - Building code provisions.

Basic principles of detailed and approximate estimating - specification writing and rate analysis – principles of valuation of real property.

Machinery for earthwork, concreting and their specific uses – Factors affecting selection of equipments – operating cost of Equipments.

### 1.3 Construction Planning and Management:

Construction activity – schedules- organization for construction industry – Quality assurance principles.

Use of Basic principles of network – analysis in form of CPM and PERT – their use in construction monitoring, Cost optimization and resource allocation.

Basic principles of Economic analysis and methods.

Project profitability – Basic principles of Boot approach to financial planning – simple toll fixation criterions.

### 2. Surveying and Transportation Engineering :

#### 2.1 Surveying:

Common methods and instruments for distance and angle measurement for CE work – their use in plane table, traverse survey, leveling work, triangulation, contouring and topographical map.

Basic principles of photogrammetry and remote sensing.

#### 2.2 Railway Engineering:

Permanent way – components, types and their functions – Functions and Design constituents of turn and crossings – Necessity of geometric design of track – Design of station and yards.

#### 2.3 Highway Engineering:

Principles of Highway alignments – classification and geometrical design elements and standards for Roads.

Pavement structure for flexible and rigid pavements - Design principles and methodology of pavements.

Typical construction methods and standards of materials for stabilized soil, WBM, Bituminous works and CC roads.

Surface and sub-surface drainage arrangements for roads - culvert structures.

Pavement distresses and strengthening by overlays.

Traffic surveys and their applications in traffic planning - Typical design features for channelized, intersection, rotary etc – signal designs – standard Traffic signs and markings.

### 3. Hydrology, Water Resources and Engineering:

#### 3.1 Hydrology:

Hydrological cycle, precipitation, evaporation, transpiration, infiltration, overland flow, hydrograph, flood frequency analysis, flood routing through a reservoir, channel flow routing-Muskingam method.

#### 3.2 Ground water flow:

Specific yield, storage coefficient, coefficient of permeability, confined and unconfined aquifers, aquifers, aquitards, radial flow into a well under confined and unconfined conditions.

#### 3.3 Water Resources Engineering:

Ground and surface water resource, single and multipurpose projects, storage capacity of reservoirs, reservoir losses, reservoir sedimentation.

#### 3.4 Irrigation Engineering:

(i) Water requirements of crops: consumptive use, duty and delta, irrigation methods and their efficiencies.

(ii) Canals: Distribution systems for canal irrigation, canal capacity, canal losses, alignment of main and distributory canals, most efficient section, lined canals, their design, regime theory, critical shear stress,

bed load.

(iii) Water logging: causes and control, salinity.

(iv) Canal structures: Design of, head regulators, canal falls, aqueducts, metering flumes and canal outlets.

(v) Diversion headwork: Principles and design of weirs of permeable and impermeable foundation, Khosla's theory, energy dissipation.

(vi) Storage works: Types of dams, design, principles of rigid gravity, stability analysis.

(vii) Spillways: Spillway types, energy dissipation.

(viii) River training: Objectives of river training, methods of river training.

### 4. Environmental Engineering:

#### 4.1 Water Supply:

Predicting demand for water, impurities of water and their significance, physical, chemical and bacteriological analysis, waterborne diseases, standards for potable water.

#### 4.2 Intake of water:

Water treatment: principles of coagulation, flocculation and sedimentation; slow-, rapid-, pressure-, filters; chlorination, softening, removal of taste, odour and salinity.

#### 4.3 Sewerage systems:

Domestic and industrial wastes, storm sewage-separate and combined systems, flow through sewers, design of sewers.

#### 4.4 Sewage characterization:

BOD, COD, solids, dissolved oxygen, nitrogen and TOC. Standards of disposal in normal watercourse and on land.

#### 4.5 Sewage treatment:

Working principles, units, chambers, sedimentation tanks, trickling filters, oxidation ponds, activated sludge process, septic tank, disposal of sludge, recycling of wastewater.

#### 4.6 Solid waste:

Collection and disposal in rural and urban contexts, management of long-term ill effects.

#### 5. Environmental pollution:

Sustainable development. Radioactive wastes and disposal. Environmental impact assessment for thermal power plants, mines, river valley projects. Air pollution. Pollution control acts.

## COMMERCE AND ACCOUNTANCY

### PAPER - I

#### Accounting and Finance

#### Accounting, Taxation & Auditing

##### 1. Financial Accounting:

Accounting as a Financial Information System; Impact of Behavioural Sciences. Accounting Standards e.g., Accounting for Depreciation, Inventories, Research and Development Costs, Long-term Construction Contracts, Revenue Recognition, Fixed Assets, Contingencies, Foreign Exchange Transactions, Investments and Government Grants, Cash Flow Statement, Earnings Per Share.

Accounting for Share Capital Transactions including Bonus Shares, Right Shares, Employees Stock Option and Buy- Back of Securities.

Preparation and Presentation of Company Final Accounts.

Amalgamation, Absorption and Reconstruction of Companies.

##### 2. Cost Accounting:

Nature and Functions of Cost Accounting. Installation of Cost Accounting System. Cost Concepts related to Income Measurement, Profit Planning, Cost Control and Decision Making.

Methods of Costing: Job Costing, Process Costing, Activity Based Costing. Volume – cost – Profit Relationship as a tool of Profit Planning.

Incremental Analysis/ Differential Costing as a Tool of Pricing Decisions, Product Decisions, Make or Buy Decisions, Shut-

Down Decisions etc.

Techniques of Cost Control and Cost Reduction: Budgeting as a Tool of Planning and Control. Standard Costing and Variance Analysis.

Responsibility Accounting and Divisional Performance Measurement.

##### 3. Taxation:

Income Tax: Definitions; Basis of Charge; Incomes which do not form Part of Total Income. Simple problems of Computation of Income (of Individuals only) under Various Heads, i.e., Salaries, Income from House Property, Profits and Gains from Business or Profession, Capital Gains, Income from other sources, Income of other Persons included in Assessee's Total Income .

Set - Off and Carry Forward of Loss.

Deductions from Gross Total Income.

Salient Features/Provisions Related to VAT and Services Tax.

##### 4. Auditing:

Company Audit: Audit related to Divisible Profits, Dividends, Special investigations, Tax audit.

Audit of Banking, Insurance, Non-Profit Organizations and Charitable Societies/Trusts/Organizations.

### Financial Management, Financial Institutions and Markets

#### 1. Financial Management:

Finance Function: Nature, Scope and Objectives of Financial Management: Risk and Return Relationship.

Tools of Financial Analysis: Ratio Analysis, Funds-Flow and Cash-Flow Statement.

Capital Budgeting Decisions: Process, Procedures and Appraisal Methods. Risk and Uncertainty Analysis and Methods.

Cost of capital: Concept, Computation of Specific Costs and Weighted Average Cost of Capital. CAPM as a Tool of Determining Cost of Equity Capital.

Financing Decisions: Theories of Capital Structure - Net Income (NI) Approach, Net Operating Income (NOI) Approach, MM Approach and Traditional Approach. Designing of Capital structure: Types of Leverages (Operating, Financial and Combined), EBIT- EPS Analysis, and other Factors.

Dividend Decisions and Valuation of Firm: Walter's Model, MM Thesis, Gordan's Model Lintner's Model. Factors Affecting Dividend Policy.

Working Capital Management: Planning of Working Capital. Determinants of Working Capital. Components of Working Capital - Cash, Inventory and Receivables.

Corporate Restructuring with focus on Mergers and Acquisitions (Financial aspects only)

#### 2. Financial Markets and Institutions:

Indian Financial System: An Overview Money Markets: Participants, Structure and Instruments. Commercial Banks. Reforms in Banking sector. Monetary and Credit Policy of RBI. RBI as a Regulator. Capital Market: Primary and Secondary Market. Financial Market Instruments and Innovative Debt Instruments; SEBI as a Regulator.

Financial Services: Mutual Funds, Venture Capital, Credit Rating Agencies, Insurance and IRDA.

#### PAPER – II

### Organisation Theory and Behaviour, Human Resource Management and Industrial Relations

#### Organisation Theory and Behaviour

##### 1. Organisation Theory:

Nature and Concept of Organisation; External Environment of Organizations - Technological, Social, Political, Economical and Legal; Organizational Goals - Primary and Secondary goals, Single and Multiple Goals; Management by Objectives.

Evolution of Organisation Theory: Classical, Neo-classical and Systems

Approach. Modern Concepts of Organisation Theory: Organisational Design, Organisational Structure and Organisational Culture. Organisational Design—Basic Challenges; Differentiation and Integration Process; Centralization and Decentralization Process; Standardization / Formalization and Mutual Adjustment. Coordinating Formal and Informal Organizations. Mechanistic and Organic Structures.

Designing Organizational structures—Authority and Control; Line and Staff Functions, Specialization and Coordination. Types of Organization Structure—Functional. Matrix Structure, Project Structure. Nature and Basis of Power, Sources of Power, Power Structure and Politics. Impact of Information Technology on Organizational Design and Structure. Managing Organizational Culture.

## 2. Organisation Behaviour:

Meaning and Concept; Individual in organizations: Personality, Theories, and Determinants; Perception - Meaning and Process.

Motivation: Concepts, Theories and Applications. Leadership-Theories and Styles. Quality of Work Life (QWL): Meaning and its impact on Performance, Ways of its Enhancement. Quality Circles (QC) – Meaning and their Importance. Management of Conflicts in Organizations. Transactional Analysis, Organizational Effectiveness, Management of Change.

## Human Resources Management and Industrial Relations

### 1. Human Resources Management (HRM):

Meaning, Nature and Scope of HRM, Human Resource Planning, Job Analysis, Job Description, Job Specification, Recruitment Process, Selection Process, Orientation and Placement, Training and Development Process, Performance Appraisal and 360° Feed Back, Salary and Wage Administration, Job Evaluation, Employee Welfare, Promotions, Transfers and Separations.

### 2. Industrial Relations (IR):

Meaning, Nature, Importance and Scope of IR, Formation of Trade Unions, Trade Union Legislation, Trade Union Movement in India. Recognition of Trade Unions, Problems of Trade Unions in India. Impact of Liberalization on Trade Union Movement.

Nature of Industrial Disputes : Strikes and Lockouts, Causes of Disputes, Prevention and Settlement of Disputes.

Worker's Participation in Management: Philosophy, Rationale, Present Day Status and Future Prospects.

Adjudication and Collective Bargaining. Industrial Relations in Public Enterprises, Absenteeism and Labour Turnover in Indian Industries and their Causes and Remedies.

ILO and its Functions.

## ECONOMICS

### PAPER – I

#### 1. Advanced Micro Economics:

- Marshallian and Walrasian Approaches to Price determination.
- Alternative Distribution Theories: Ricardo, Kaldor, Kaleeki
- Markets Structure: Monopolistic Competition, Duopoly, Oligopoly.
- Modern Welfare Criteria: Pareto Hicks & Scitovsky, Arrow's Impossibility Theorem, A.K. Sen's Social Welfare Function.

#### 2. Advanced Macro Economics:

Approaches to Employment Income and Interest Rate determination: Classical, Keynes (IS-LM) curve, Neo classical synthesis and New classical, Theories of Interest Rate determination and Interest Rate Structure.

### 3. Money - Banking and Finance:

- Demand for and Supply of Money: Money Multiplier Quantity Theory of Money (Fisher, Pique and Friedman) and Keyne's Theory on Demand for Money, Goals and Instruments of Monetary Management in Closed and Open Economies. Relation between the Central Bank and the Treasury. Proposal for ceiling on growth rate of money.
- Public Finance and its Role in Market Economy: In stabilization of supply, allocation of resources and in distribution and development. Sources of Govt. revenue, forms of Taxes and Subsidies, their incidence and effects. Limits to taxation, loans, crowding-out effects and limits to borrowings. Public Expenditure and its effects.

### 4. International Economics:

- Old and New Theories of International Trade
  - Comparative Advantage
  - Terms of Trade and Offer Curve.
  - Product Cycle and Strategic Trade Theories.
  - Trade as an engine of growth and theories of under development in an open economy.
- Forms of Protection: Tariff and quota.
- Balance of Payments Adjustments: Alternative Approaches.
  - Price versus income, income adjustments under fixed exchange rates,
  - Theories of Policy Mix
  - Exchange rate adjustments under capital mobility
  - Floating Rates and their Implications for Developing Countries: Currency Boards.
  - Trade Policy and Developing Countries.
  - BOP, adjustments and Policy Coordination in open economy macro-model.
  - Speculative attacks
  - Trade Blocks and Monetary Unions.
  - WTO: TRIMS, TRIPS, Domestic Measures, Different Rounds of WTO talks.

### 5. Growth and Development:

- Theories of growth: Harrod's model,
  - Lewis model of development with surplus labour
  - Balanced and Unbalanced growth,
  - Human Capital and Economic Growth.
- Research and Development and Economic Growth
- Process of Economic Development of Less developed countries: Myrdal and Kuznets on economic development and structural change: Role of Agriculture in Economic Development of less developed countries.
- Economic development and International Trade and Investment, Role of Multinationals.
- Planning and Economic Development: changing role of Markets and Planning, Private-Public Partnership
- Welfare indicators and measures of growth – Human Development Indices. The basic needs approach.
- Development and Environmental Sustainability – Renewable and Non Renewable Resources, Environmental Degradation, Intergenerational equity development.

### PAPER – II

#### 1. Indian Economy in Pre-Independence Era:

Land System and its changes, Commercialization of agriculture, Drain theory, Laissez faire theory and critique. Manufacture and Transport: Jute, Cotton, Railways, Money and Credit.

### 2. Indian Economy after Independence:

- The Pre Liberalization Era:
  - Contribution of Vakil, Gadgil and V.K.R.V. Rao.
  - Agriculture: Land Reforms and land tenure system, Green Revolution and capital formation in agriculture,
  - Industry Trends in composition and growth, Role of public and private sector, Small scale and cottage industries.
  - National and Per capita income: patterns, trends, aggregate and Sectoral composition and changes their in.
  - Broad factors determining National Income and distribution, Measures of poverty, Trends in poverty and inequality.
- The Post Liberalization Era:
  - New Economic Reform and Agriculture: Agriculture and WTO, Food processing, Subsidies, Agricultural prices and public distribution system, Impact of public expenditure on agricultural growth.
  - New Economic Policy and Industry: Strategy of industrialization, Privatization, Disinvestments, Role of foreign direct investment and multinationals.
  - New Economic Policy and Trade: Intellectual property rights: Implications of TRIPS, TRIMS, GATS and new EXIM policy.
  - New Exchange Rate Regime: Partial and full convertibility, Capital account convertibility.
  - New Economic Policy and Public Finance: Fiscal Responsibility Act, Twelfth Finance Commission and Fiscal Federalism and Fiscal Consolidation.
  - New Economic Policy and Monetary system. Role of RBI under the new regime.
  - Planning: From central Planning to indicative planning, Relation between planning and markets for growth and decentralized planning: 73rd and 74th Constitutional amendments.
  - New Economic Policy and Employment: Employment and poverty, Rural wages, Employment Generation, Poverty alleviation schemes, New Rural, Employment Guarantee Scheme.

## ELECTRICAL ENGINEERING

### PAPER - I

#### 1. Circuit Theory:

Circuit components; network graphs; KCL, KVL; circuit analysis methods: nodal analysis, mesh analysis; basic network theorems and applications; transient analysis: RL, RC and RLC circuits; sinusoidal steady state analysis; resonant circuits; coupled circuits; balanced 3-phase circuits; Two-port networks.

#### 2. Signals & Systems:

Representation of continuous-time and discrete-time signals & systems; LTI systems; convolution; impulse response; time-domain analysis of LTI systems based on convolution and differential/difference equations. Fourier transform, Laplace transform, Z-transform, Transfer function. Sampling and recovery of signals DFT, FFT Processing of analog signals through discrete-time systems.

#### 3. E.M. Theory:

Maxwell's equations, wave propagation in bounded media. Boundary conditions, reflection and refraction of plane waves. Transmission line: travelling and standing waves, impedance matching, Smith

chart.

### 4. Analog Electronics:

Characteristics and equivalent circuits (large and small-signal) of Diode, BJT, JFET and MOSFET. Diode circuits: clipping, clamping, rectifier. Biasing and bias stability. FET amplifiers. Current mirror; Amplifiers: single and multi-stage, differential, operational, feedback and power. Analysis of amplifiers; frequency-response of amplifiers. OPAMP circuits. Filters; sinusoidal oscillators: criterion for oscillation; single-transistor and OPAMP configurations. Function generators and wave-shaping circuits. Linear and switching power supplies.

### 5. Digital Electronics:

Boolean algebra; minimization of Boolean functions; logic gates; digital IC families (DTL, TTL, ECL, MOS, CMOS). Combinational circuits: arithmetic circuits, code converters, multiplexers and decoders. Sequential circuits: latches and flip-flops, counters and shift-registers. Comparators, timers, multivibrators. Sample and hold circuits, ADCs and DACs. Semiconductor memories. Logic implementation using programmable devices (ROM, PLA, FPGA).

### 6. Energy Conversion:

Principles of electromechanical energy conversion: Torque and emf in rotating machines. DC machines: characteristics and performance analysis; starting and speed control of motors; Transformers: principles of operation and analysis; regulation, efficiency; 3-phase transformers. 3-phase induction machines and synchronous machines: characteristics and performance analysis; speed control.

### 7. Power Electronics and Electric Drives:

Semiconductor power devices: diode, transistor, thyristor, triac, GTO and MOSFET—static characteristics and principles of operation; triggering circuits; phase control rectifiers; bridge converters: fully-controlled and half-controlled; principles of thyristor choppers and inverters; DC-DC converters; Switch mode inverter; basic concepts of speed control of dc and ac Motor drives applications of variable-speed drives.

### 8. Analog Communication:

Random variables: continuous, discrete; probability, probability functions. Statistical averages; probability models; Random signals and noise: white noise, noise equivalent bandwidth; signal transmission with noise; signal to noise ratio. Linear CW modulation: Amplitude modulation: DSB, DSB-SC and SSB. Modulators and Demodulators; Phase and Frequency modulation: PM & FM signals; narrowband FM; generation & detection of FM and PM, Deemphasis, Preemphasis. CW modulation system: Superhetrodyne receivers, AM receivers, communication receivers, FM receivers, phase locked loop, SSB receiver Signal to noise ratio calculation for AM and FM receivers.

### PAPER - II

#### 1. Control Systems:

Elements of control systems; block-diagram representation; open-loop & closed-loop systems; principles and applications of feed-back. Control system components. LTI systems: time-domain and transform-domain analysis. Stability: Routh Hurwitz criterion, root-loci, Bodeplots and polar plots, Nyquist's criterion; Design of lead-lag compensators. Proportional, PI, PID controllers. State-variable representation and analysis of control systems.

#### 2. Microprocessors and Microcomputers:

PC organisation; CPU, instruction set, register set, timing diagram, programming, interrupts, memory interfacing, I/O interfacing, programmable peripheral devices.

**3. Measurement and Instrumentation:**

Error analysis; measurement of current, voltage, power, energy, power-factor, resistance, inductance, capacitance and frequency; bridge measurement. Signal conditioning circuit; Electronic measuring instruments: multimeter, CRO, digital voltmeter, frequency counter, Q-meter, spectrum-analyzer, distortion-meter.

Transducers: thermocouple, thermistor, LVDT, strain-gauge, piezo-electric crystal.

**4. Power Systems: Analysis and Control:**

Steady-state performance of overhead transmission lines and cables; principles of active and reactive power transfer and distribution; per-unit quantities; bus admittance and impedance matrices; load flow; voltage control and power factor correction; economic operation; symmetrical components, analysis of symmetrical and unsymmetrical faults. Concept of system stability: swing curves and equal area criterion. Static VAR system. Basic concepts of HVDC transmission.

**5. Power System Protection:**

Principles of overcurrent, differential and distance protection. Concept of solid state relays. Circuit breakers. Computer aided protection: Introduction; line bus, generator, transformer protection; numeric relays and application of DSP to protection.

**6. Digital Communication:**

Pulse code modulation (PCM), differential pulse code modulation (DPCM), delta modulation (DM), Digital modulation and demodulation schemes: amplitude, phase and frequency keying schemes (ASK, PSK, FSK). Error control coding: error detection and correction, linear block codes, convolution codes. Information measure and source coding. Data networks, 7-layer architecture.

**GEOGRAPHY****PAPER - I****PRINCIPLES OF GEOGRAPHY****Physical Geography:**

**1. Geomorphology:** Factors controlling landform development; endogenous and exogenous forces; Origin and evolution of the earth's crust; Fundamentals of geomagnetism; Physical conditions of the earth's interior; Geosynclines; Continental drift; Isostasy; Plate tectonics; Recent views on mountain building; Vulcanicity; Earthquakes and Tsunamis; Concepts of geomorphic cycles and Landscape development; Denudation chronology; Channel morphology; Erosion surfaces; Slope development; Applied Geomorphology: Geohydrology, economic geology and environment.

**2. Climatology:** Temperature and pressure belts of the world; Heat budget of the earth; Atmospheric circulation; atmospheric stability and instability. Planetary and local winds; Monsoons and jet streams; Air masses and frontogenesis, Temperate and tropical cyclones; Types and distribution of precipitation; Weather and Climate; Koppen's, Thornthwaite's and Trewartha's classification of world climates; Hydrological cycle; Global climatic change and role and response of man in climatic changes, Applied climatology and Urban climate.

**3. Oceanography:** Bottom topography of the Atlantic, Indian and Pacific Oceans; Temperature and salinity of the oceans; Heat and salt budgets, Ocean deposits; Waves, currents and tides; Marine resources: biotic, mineral and energy resources; Coral reefs, coral bleaching; sea-level changes; law of the sea and marine pollution.

**4. Biogeography:** Genesis of soils; Classification and distribution of soils; Soil profile; Soil erosion, Degradation and conservation; Factors influencing world distribution of plants and animals; Problems of deforestation and conserva-

tion measures; Social forestry; agro-forestry; Wild life; Major gene pool centres.

**5. Environmental Geography:** Principle of ecology; Human ecological adaptations; Influence of man on ecology and environment; Global and regional ecological changes and imbalances; Ecosystem their management and conservation; Environmental degradation, management and conservation; Biodiversity and sustainable development; Environmental policy; Environmental hazards and remedial measures; Environmental education and legislation.

**Human Geography:**

**1. Perspectives in Human Geography:** Areal differentiation; regional synthesis; Dichotomy and dualism; Environmentalism; Quantitative revolution and locational analysis; radical, behavioural, human and welfare approaches; Languages, religions and secularisation; Cultural regions of the world; Human development index.

**2. Economic Geography:** World economic development: measurement and problems; World resources and their distribution; Energy crisis; the limits to growth; World agriculture: typology of agricultural regions; agricultural inputs and productivity; Food and nutrition problems; Food security; famine: causes, effects and remedies; World industries: locational patterns and problems; patterns of world trade.

**3. Population and Settlement Geography:** Growth and distribution of world population; demographic attributes; Causes and consequences of migration; concepts of over-under-and optimum population; Population theories, world population problems and policies, Social well-being and quality of life; Population as social capital.

Types and patterns of rural settlements; Environmental issues in rural settlements; Hierarchy of urban settlements; Urban morphology: Concepts of primate city and rank-size rule; Functional classification of towns; Sphere of urban influence; Rural - urban fringe; Satellite towns; Problems and remedies of urbanization; Sustainable development of cities.

**4. Regional Planning:** Concept of a region; Types of regions and methods of regionalisation; Growth centres and growth poles; Regional imbalances; regional development strategies; environmental issues in regional planning; Planning for sustainable development.

**5. Models, Theories and Laws in Human Geography:** Systems analysis in Human geography; Malthusian, Marxian and demographic transition models; Central Place theories of Christaller and Losch; Perroux and Boudeville; Von Thunen's model of agricultural location; Weber's model of industrial location; Ostov's model of stages of growth. Heartland and Rimland theories; Laws of international boundaries and frontiers.

**PAPER - II****GEOGRAPHY OF INDIA**

**1. Physical Setting:** Space relationship of India with neighboring countries; Structure and relief; Drainage system and watersheds; Physiographic regions; Mechanism of Indian monsoons and rainfall patterns, Tropical cyclones and western disturbances; Floods and droughts; Climatic regions; Natural vegetation; Soil types and their distributions.

**2. Resources:** Land, surface and ground water, energy, minerals, biotic and marine resources; Forest and wild life resources and their conservation; Energy crisis.

**3. Agriculture:** Infrastructure: irrigation, seeds, fertilizers, power; Institutional factors: land holdings, land tenure and land reforms; Cropping pattern, agricultural productivity, agricultural intensity, crop

combination, land capability; Agro and social-forestry; Green revolution and its socio-economic and ecological implications; Significance of dry farming; Livestock resources and white revolution; aqua - culture; sericulture, apiculture and poultry; agricultural regionalisation; agro-climatic zones; agro-ecological regions.

**4. Industry:** Evolution of industries; Locational factors of cotton, jute, textile, iron and steel, aluminium, fertilizer, paper, chemical and pharmaceutical, automobile, cottage and agro-based industries; Industrial houses and complexes including public sector undertakings; Industrial regionalisation; New industrial policies; Multinationals and liberalization; Special Economic Zones; Tourism including ecotourism.

**5. Transport, Communication and Trade:** Road, railway, waterway, airway and pipeline networks and their complementary roles in regional development; Growing importance of ports on national and foreign trade; Trade balance; Trade Policy; Export processing zones; Developments in communication and information technology and their impacts on economy and society; Indian space programme.

**6. Cultural Setting:** Historical Perspective of Indian Society; Racial, linguistic and ethnic diversities; religious minorities; major tribes, tribal areas and their problems; cultural regions; Growth, distribution and density of population; Demographic attributes: sex-ratio, age structure, literacy rate, work-force, dependency ratio, longevity; migration (inter-regional, intra-regional and international) and associated problems; Population problems and policies; Health indicators.

**7. Settlements:** Types, patterns and morphology of rural settlements; Urban developments; Morphology of Indian cities; Functional classification of Indian cities; Conurbations and metropolitan regions; urban sprawl; Slums and associated problems; town planning; Problems of urbanization and remedies.

**8. Regional Development and Planning:** Experience of regional planning in India; Five Year Plans; Integrated rural development programmes; Panchayati Raj and decentralised planning; Command area development; Watershed management; Planning for backward area, desert, drought prone, hill, tribal area development; multi-level planning; Regional planning and development of island territories.

**9. Political Aspects:** Geographical basis of Indian federalism; State reorganisation; Emergence of new states; Regional consciousness and inter state issues; international boundary of India and related issues; Cross border terrorism; India's role in world affairs; Geopolitics of South Asia and Indian Ocean realm.

**10. Contemporary Issues:** Ecological issues: Environmental hazards: landslides, earthquakes, Tsunamis, floods and droughts, epidemics; Issues relating to environmental pollution; Changes in patterns of land use; Principles of environmental impact assessment and environmental management; Population explosion and food security; Environmental degradation; Deforestation, desertification and soil erosion; Problems of agrarian and industrial unrest; Regional disparities in economic development; Concept of sustainable growth and development; Environmental awareness; Linkage of rivers; Globalisation and Indian economy. **NOTE:** Candidates will be required to answer one compulsory map question pertinent to subjects covered by this paper.

**GEOLOGY****PAPER - I****1. General Geology:**

The Solar System, Meteorites, Origin and interior of the earth and age of earth; Volcanoes- causes and products, Volcanic belts; Earthquakes-causes, effects, Seismic zones of India; Island arcs, trenches and mid-ocean ridges; Continental drifts; Seafloor spreading, Plate tectonics; Isostasy.

**2. Geomorphology and Remote Sensing:**

Basic concepts of geomorphology; Weathering and soil formations; Land forms, slopes and drainage; Geomorphic cycles and their interpretation; Morphology and its relation to structures and lithology; Coastal geomorphology; Applications of geomorphology in mineral prospecting, civil engineering; Hydrology and environmental studies; Geomorphology of Indian subcontinent. Aerial photographs and their interpretation-merits and limitations; The Electromagnetic spectrum; Orbiting satellites and sensor systems; Indian Remote Sensing Satellites; Satellites data products; Applications of remote sensing in geology; The Geographic Information Systems (GIS) and Global Positioning System (GPS) - its applications.

**3. Structural Geology:**

Principles of geologic mapping and map reading, Projection diagrams, Stress and strain ellipsoid and stress-strain relationships of elastic, plastic and viscous materials; Strain markers in deformed rocks; Behaviour of minerals and rocks under deformation conditions; Folds and faults classification and mechanics; Structural analysis of folds, foliations, lineations, joints and faults, unconformities; Time-relation-ship between crystallization and deformation.

**4. Paleontology:**

Species- definition and nomenclature; Megafossils and Microfossils; Modes of preservation of fossils; Different kinds of microfossils; Application of microfossils in correlation, petroleum exploration, paleoclimatic and paleoceanographic studies; Evolutionary trend in Hominidae, Equidae and Proboscidae; Siwalik fauna; Gondwana flora and fauna and its importance; Index fossils and their significance.

**5. Indian Stratigraphy:**

Classification of stratigraphic sequences: lithostratigraphic, biostratigraphic, chronostratigraphic and magnetostratigraphic and their interrelationships; Distribution and classification of Precambrian rocks of India; Study of stratigraphic distribution and lithology of Phanerozoic rocks of India with reference to fauna, flora and economic importance; Major boundary problems- Cambrian/Precambrian, Permian/Triassic, Cretaceous/Tertiary and Pliocene/Pleistocene; Study of climatic conditions, paleogeography and igneous activity in the Indian subcontinent in the geological past; Tectonic framework of India; Evolution of the Himalayas.

**6. Hydrogeology and Engineering Geology:**

Hydrologic cycle and genetic classification of water; Movement of subsurface water; Springs; Porosity, permeability, hydraulic conductivity, transmissivity and storage coefficient, classification of aquifers; Water-bearing characteristics of rocks; Ground-water chemistry; Salt water intrusion; Types of wells; Drainage basin morphometry; Exploration for groundwater; Groundwater recharge; Problems and management of groundwater; Rainwater harvesting; Engineering properties of rocks; Geologic investigations for dams, tunnels highways, railway and bridges; Rock as construction material; Landslides-causes, prevention and rehabilitation; Earthquake-resistant structures.

**PAPER - II****1. Mineralogy:**

Classification of crystals into systems and classes of symmetry; International system of crystallographic notation; Use of projection diagrams to represent crystal symmetry; Elements of X-ray crystallography.

Physical and chemical characters of rock forming silicate mineral groups; Structural classification of silicates; Common minerals of igneous and metamorphic rocks; Minerals of the carbonate, phosphate, sulphide and halide groups; Clay minerals.

Optical properties of common rock forming minerals; Pleochroism, extinction angle, double refraction, birefringence, twinning and dispersion in minerals.

**2. Igneous and Metamorphic Petrology:**

Generation and crystallization of magmas; Crystallization of albite-anorthite, diopside-anorthite and diopside-wollastonite-silica systems; Bowen's Reaction Principle; Magmatic differentiation and assimilation; Petrogenetic significance of the textures and structures of igneous rocks; Petrography and petrogenesis of granite, syenite, diorite, basic and ultrabasic groups, charnockite, anorthosite and alkaline rocks; Carbonatites; Deccan volcanic province.

Types and agents of metamorphism; Metamorphic grades and zones; Phase rule; Facies of regional and contact metamorphism; ACF and AKF diagrams; Textures and structures of metamorphic rocks; Metamorphism of arenaceous, argillaceous and basic rocks; Minerals assemblages Retrograde metamorphism; Metasomatism and granitisation, migmatites, Granulite terrains of India.

**3. Sedimentary Petrology:**

Sediments and Sedimentary rocks: Processes of formation; diagenesis and lithification; Clastic and non-clastic rocks-their classification, petrography and depositional environment; Sedimentary facies and provenance; Sedimentary structures and their significance; Heavy minerals and their significance; Sedimentary basins of India.

**4. Economic Geology:**

Ore, ore minerals and gangue, tenor of ore, classification of ore deposits; Process of formation of minerals deposits; Controls of ore localization; Ore textures and structures; Metallogenic epochs and provinces; Geology of the important Indian deposits of aluminium, chromium, copper, gold, iron, lead zinc, manganese, titanium, uranium and thorium and industrial minerals; Deposits of coal and petroleum in India; National Mineral Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

**5. Mining Geology:**

Methods of prospecting-geological, geo-physical, geochemical and geobotanical; Techniques of sampling; Estimation of reserves or ore; Methods of exploration and mining metallic ores, industrial minerals, marine mineral resources and building stones; Mineral beneficiation and ore dressing.

**6. Geochemistry and Environmental Geology:**

Cosmic abundance of elements; Composition of the planets and meteorites; Structure and composition of Earth and distribution of elements; Trace elements; Elements of crystal chemistry-types of chemical bonds, coordination number; Isomorphism and polymorphism; Elementary thermodynamics.

Natural hazards-floods, mass wasting, coastal hazards, earthquakes and volcanic activity and mitigation; Environmental impact of urbanization, mining, industrial and radioactive waste disposal, use of fertilizers, dumping of mine waste and fly ash; Pollution of ground and surface

water, marine pollution; Environment protection - legislative measures in India; Sea level changes: causes and impact.

**HISTORY****PAPER - I****1. Sources:**

Archaeological sources:

Exploration, excavation, epigraphy, numismatics, monuments

Literary sources:

Indigenous: Primary and secondary; poetry, scientific literature, literature, literature in regional languages, religious literature.

Foreign accounts: Greek, Chinese and Arab writers.

**2. Pre-history and Proto-history:**

Geographical factors; hunting and gathering (paleolithic and mesolithic); Beginning of agriculture (neolithic and chalcolithic).

**3. Indus Valley Civilization:**

Origin, date, extent, characteristics, decline, survival and significance, art and architecture.

**4. Megalithic Cultures:**

Distribution of pastoral and farming cultures outside the Indus, Development of community life, Settlements, Development of agriculture, Crafts, Pottery, and Iron industry.

**5. Aryans and Vedic Period:**

Expansions of Aryans in India.

Vedic Period: Religious and philosophic literature; Transformation from Rig Vedic period to the later Vedic period; Political, social and economical life; Significance of the Vedic Age; Evolution of Monarchy and Varna system.

**6. Period of Mahajanapadas:**

Formation of States (Mahajanapada) : Republics and monarchies; Rise of urban centres; Trade routes; Economic growth; Introduction of coinage; Spread of Jainism and Buddhism; Rise of Magadha and Nandas.

Iranian and Macedonian invasions and their impact.

**7. Mauryan Empire:**

Foundation of the Mauryan Empire, Chandragupta, Kautilya and Arthashastra; Ashoka; Concept of Dharma; Edicts; Polity, Administration; Economy; Art, architecture and sculpture; External contacts; Religion; Spread of religion; Literature.

Disintegration of the empire; Sungas and Kanvas.

**8. Post - Mauryan Period (Indo-Greeks, Sakas, Kushanas, Western Kshatrapas):**

Contact with outside world; growth of urban centres, economy, coinage, development of religions, Mahayana, social conditions, art, architecture, culture, literature and science.

**9. Early State and Society in Eastern India, Deccan and South India:**

Kharavela, The Satavahanas, Tamil States of the Sangam Age; Administration, economy, land grants, coinage, trade guilds and urban centres; Buddhist centres; Sangam literature and culture; Art and architecture.

**10. Guptas, Vakatakas and Vardhanas:**

Polity and administration, Economic conditions, Coinage of the Guptas, Land grants, Decline of urban centres, Indian feudalism, Caste system, Position of women, Education and educational institutions; Nalanda, Vikramshila and Vallabhi, Literature, scientific literature, art and architecture.

**11. Regional States during Gupta Era:**

The Kadambas, Pallavas, Chalukyas of Badami; Polity and Administration, Trade guilds, Literature; growth of Vaishnava and Saiva religions. Tamil Bhakti movement, Shankaracharya; Vedanta; Institutions of temple and temple architecture; Palas, Senas, Rashtrakutas, Paramaras, Polity and administration; Cultural aspects. Arab conquest of Sind;

Alberuni, The Chalukyas of Kalyana, Cholas, Hoysalas, Pandyas; Polity and Administration; local Government; Growth of art and architecture, religious sects, Institution of temple and Mathas, Agraharas, education and literature, economy and society.

**12. Themes in Early Indian Cultural History:**

Languages and texts, major stages in the evolution of art and architecture, major philosophical thinkers and schools, ideas in Science and Mathematics.

**13. Early Medieval India, 750-1200:**

- Polity: Major political developments in Northern India and the Peninsula, origin and the rise of Rajputs

- The Cholas: administration, village economy and society

- "Indian Feudalism"

- Agrarian economy and urban settlements

- Trade and commerce

- Society: the status of the Brahman and the new social order

- Condition of women

- Indian science and technology

**14. Cultural Traditions in India, 750-1200:**

- Philosophy: Skankaracharya and Vedanta, Ramanuja and Vishishtadvaita, Madhva and Brahma-Mimansa

- Religion: Forms and features of religion, Tamil devotional cult, growth of Bhakti, Islam and its arrival in India, Sufism

- Literature: Literature in Sanskrit, growth of Tamil literature, literature in the newly developing languages, Kalhan's Rajtarangini, Alberuni's India

- Art and Architecture: Temple architecture, sculpture, painting

**15. The Thirteenth Century:**

- Establishment of the Delhi Sultanate: The Ghurian invasions – factors behind Ghurian success

- Economic, social and cultural consequences

- Foundation of Delhi Sultanate and early Turkish Sultans

- Consolidation: The rule of Iltutmish and Balban

**16. The Fourteenth Century:**

- "The Khalji Revolution"

- Alauddin Khalji: Conquests and territorial expansion, agrarian and economic measures

- Muhammad Tughluq: Major projects, agrarian measures, bureaucracy of Muhammad Tughluq

- Firuz Tughluq: Agrarian measures, achievements in civil engineering and public works, decline of the Sultanate, foreign contacts and Ibn Battuta's account

**17. Society, Culture and Economy in the Thirteenth and Fourteenth Centuries:**

- Society: composition of rural society, ruling classes, town dwellers, women, religious classes, caste and slavery under the Sultanate, Bhakti movement, Sufi movement

- Culture: Persian literature, literature in the regional languages of North India, literature in the languages of South India, Sultanate architecture and new structural forms, painting, evolution of a composite culture

- Economy: Agricultural production, rise of urban economy and non-agricultural production, trade and commerce

**18. The Fifteenth and Early Sixteenth Century – Political Developments and Economy:**

- Rise of Provincial Dynasties: Bengal, Kashmir (Zainul Abedin), Gujarat, Malwa, Bahmanids

- The Vijayanagra Empire

- Lodis

- Mughal Empire, First phase: Babur

and Humayun

- The Sur Empire: Sher Shah's administration

- Portuguese Colonial enterprise

- Bhakti and Sufi Movements

**19. The Fifteenth and early Sixteenth Century – Society and Culture:**

- Regional cultural specificities

- Literary traditions

- Provincial architecture

- Society, culture, literature and the arts in Vijayanagara Empire.

**20. Akbar:**

- Conquests and consolidation of the Empire

- Establishment of Jagir and Mansab systems

- Rajput policy

- Evolution of religious and social outlook, theory of Sulh-i-kul and religious policy

- Court patronage of art and technology

**21. Mughal Empire in the Seventeenth Century:**

- Major administrative policies of Jahangir, Shahjahan and Aurangzeb

- The Empire and the Zamindars

- Religious policies of Jahangir, Shahjahan and Aurangzeb

- Nature of the Mughal State

- Late Seventeenth century crisis and the revolts

- The Ahom Kingdom

- Shivaji and the early Maratha Kingdom.

**22. Economy and Society in the Sixteenth and Seventeenth Centuries:**

- Population, agricultural production, craft production

- Towns, commerce with Europe through Dutch, English and French companies : a trade revolution

- Indian mercantile classes, banking, insurance and credit systems

- Condition of peasants, condition of women

- Evolution of the Sikh community and the Khalsa Panth

**23. Culture in the Mughal Empire:**

- Persian histories and other literature

- Hindi and other religious literature

- Mughal architecture

- Mughal painting

- Provincial architecture and painting

- Classical music

- Science and technology

**24. The Eighteenth Century:**

- Factors for the decline of the Mughal Empire

- The regional principalities: Nizam's Deccan, Bengal, Awadh

- Maratha ascendancy under the Peshwas

- The Maratha fiscal and financial system

- Emergence of Afghan Power, Battle of Panipat:1761

- State of politics, culture and economy on the eve of the British conquest

**PAPER - II****1. European Penetration into India:**

The Early European Settlements; The Portuguese and the Dutch; The English and the French East India Companies; Their struggle for supremacy; Carnatic Wars; Bengal -The conflict between the English and the Nawabs of Bengal; Siraj and the English; The Battle of Plassey; Significance of Plassey.

**2. British Expansion in India:**

Bengal – Mir Jafar and Mir Kasim; The Battle of Buxar; Mysore; The Marathas; The three Anglo-Maratha Wars; The Punjab.

**3. Early Structure of the British Raj:**

The early administrative structure; From diarchy to direct control; The Regulating Act (1773); The Pitt's India Act (1784); The Charter Act (1833); The voice of free trade and the changing character of British colonial rule; The English utilitarian and India.

**4. Economic Impact of British Colonial Rule:**

(a) Land revenue settlements in British India; The Permanent Settlement; Ryotwari Settlement; Mahalwari Settlement; Economic impact of the revenue arrangements; Commercialization of agriculture; Rise of landless agrarian labourers; Impoverishment of the rural society.

(b) Dislocation of traditional trade and commerce; De-industrialisation; Decline of traditional crafts; Drain of wealth; Economic transformation of India; Railroad and communication network including tele-graph and postal services; Famine and poverty in the rural interior; European business enterprise and its limitations.

**5. Social and Cultural Developments:**

The state of indigenous education, its dislocation; Orientalist-Anglicist controversy, The introduction of western education in India; The rise of press, literature and public opinion; The rise of modern vernacular literature; Progress of science; Christian missionary activities in India.

**6. Social and Religious Reform movements in Bengal and Other Areas:**

Ram Mohan Roy, The Brahmo Movement; Devendranath Tagore; Iswarchandra Vidyasagar; The Young Bengal Movement; Dayanada Saraswati; The social reform movements in India including Sati, widow remarriage, child marriage etc.; The contribution of Indian renaissance to the growth of modern India; Islamic revivalism – the Feraizi and Wahabi Movements.

**7. Indian Response to British Rule:**

Peasant movements and tribal uprisings in the 18th and 19th centuries including the Rangpur Dhing (1783), the Kol Rebellion (1832), the Mopla Rebellion in Malabar (1841-1920), the Santal Hul (1855), Indigo Rebellion (1859-60), Deccan Uprising (1875) and the Munda Ulgulan (1899-1900); The Great Revolt of 1857 - Origin, character, causes of failure, the consequences; The shift in the character of peasant uprisings in the post-1857 period; the peasant movements of the 1920s and 1930s.

8. Factors leading to the birth of Indian Nationalism; Politics of Association; The Foundation of the Indian National Congress; The Safety-valve thesis relating to the birth of the Congress; Programme and objectives of Early Congress; the social composition of early Congress leadership; the Moderates and Extremists; The Partition of Bengal (1905); The Swadeshi Movement in Bengal; the economic and political aspects of Swadeshi Movement; The beginning of revolutionary extremism in India.

9. Rise of Gandhi; Character of Gandhian nationalism; Gandhi's popular appeal; Rowlatt Satyagraha; the Khilafat Movement; the Non-cooperation Movement; National politics from the end of the Non-cooperation movement to the beginning of the Civil Disobedience movement; the two phases of the Civil Disobedience Movement; Simon Commission; The Nehru Report; the Round Table Conferences; Nationalism and the Peasant Movements; Nationalism and Working class movements; Women and Indian youth and students in Indian politics (1885-1947); the election of 1937 and the formation of ministries; Cripps Mission; the Quit India Movement; the Wavell Plan; The Cabinet Mission.

10. Constitutional Developments in the Colonial India between 1858 and 1935

11. Other strands in the National Movement

The Revolutionaries: Bengal, the Punjab, Maharashtra, U.P, the Madras Presidency, Outside India.

The Left; The Left within the Congress: Jawaharlal Nehru, Subhas Chandra Bose, the Congress Socialist Party; the Communist Party of India, other left parties.

12. Politics of Separatism; the Muslim League; the Hindu Mahasabha; Communalism and the politics of partition; Transfer of power; Independence.

13. Consolidation as a Nation; Nehru's Foreign Policy; India and her neighbours (1947-1964); The linguistic reorganisation of States (1935-1947); Regionalism and regional inequality; Integration of Princely States; Princes in electoral politics; the Question of National Language.

14. Caste and Ethnicity after 1947; Backward castes and tribes in post-colonial electoral politics; Dalit movements.

15. Economic development and political change; Land reforms; the politics of planning and rural reconstruction; Ecology and environmental policy in post-colonial India; Progress of science.

**16. Enlightenment and Modern ideas:**

(i) Major ideas of Enlightenment: Kant, Rousseau

(ii) Spread of Enlightenment in the colonies

(iii) Rise of socialist ideas (up to Marx); spread of Marxian Socialism.

**17. Origins of Modern Politics:**

(i) European States System.

(ii) American Revolution and the Constitution.

(iii) French revolution and aftermath, 1789-1815.

(iv) American Civil War with reference to Abraham Lincoln and the abolition of slavery.

(v) British Democratic Politics, 1815-1850; Parliamentary Reformers, Free Traders, Chartists.

**18. Industrialization:**

(i) English Industrial Revolution: Causes and Impact on Society

(ii) Industrialization in other countries: USA, Germany, Russia, Japan

(iii) Industrialization and Globalization.

**19. Nation-State System:**

(i) Rise of Nationalism in 19th century

(ii) Nationalism: state-building in Germany and Italy

(iii) Disintegration of Empires in the face of the emergence of nationalities across the world.

**20. Imperialism and Colonialism:**

(i) South and South-East Asia

(ii) Latin America and South Africa

(iii) Australia

(iv) Imperialism and free trade: Rise of neo-imperialism.

**21. Revolution and Counter-Revolution:**

(i) 19th Century European revolutions

(ii) The Russian Revolution of 1917-1921

(iii) Fascist Counter-Revolution, Italy and Germany.

(iv) The Chinese Revolution of 1949

**22. World Wars:**

(i) 1st and 2nd World Wars as Total Wars: Societal implications

(ii) World War I: Causes and consequences

(iii) World War II: Causes and consequence

**23. The World after World War II:**

(i) Emergence of two power blocs

(ii) Emergence of Third World and non-alignment

(iii) UNO and the global disputes.

**24. Liberation from Colonial Rule:**

(i) Latin America-Bolivar

(ii) Arab World-Egypt

(iii) Africa-Apartheid to Democracy

(iv) South-East Asia-Vietnam

**25. Decolonization and Underdevelopment:**

(i) Factors constraining development: Latin America, Africa

**26. Unification of Europe:**

(i) Post War Foundations: NATO and European Community

(ii) Consolidation and Expansion of European Community

(iii) European Union.

**27. Disintegration of Soviet Union and the Rise of the Unipolar World:**

(i) Factors leading to the collapse of Soviet communism and the Soviet Union, 1985-1991

(ii) Political Changes in Eastern Europe 1989-2001.

(iii) End of the cold war and US ascendancy in the World as the lone superpower.

**LAW****PAPER - I****Constitutional and Administrative Law**

1. Constitution and Constitutionalism: The distinctive features of the Constitution.

2. Fundamental rights – Public interest litigation; Legal Aid; Legal services authority.

3. Relationship between fundamental rights, directive principles and fundamental duties.

4. Constitutional position of the President and relation with the Council of Ministers.

5. Governor and his powers.

6. Supreme Court and High Courts:

(a) Appointments and transfer.

(b) Powers, functions and jurisdiction.

7. Centre, States and local bodies:

(a) Distribution of legislative powers between the Union and the States.

(b) Local bodies.

(c) Administrative relationship among Union, State and Local Bodies.

(d) Eminent domain – State property – common property – community property.

8. Legislative powers, privileges and immunities.

9. Services under the Union and the States:

(a) Recruitment and conditions of services; Constitutional safeguards; Administrative tribunals.

(b) Union Public Service Commission and State Public Service Commissions – Power and functions

(c) Election Commission – Power and functions.

10. Emergency provisions.

11. Amendment of the Constitution.

12. Principles of natural justice – Emerging trends and judicial approach.

13. Delegated legislation and its constitutionality.

14. Separation of powers and constitutional governance.

15. Judicial review of administrative action.

16. Ombudsman: Lokayukta, Lokpal etc.

**International Law**

1. Nature and definition of international law.

2. Relationship between international law and municipal law.

3. State recognition and state succession.

4. Law of the sea: Inland waters, territorial sea, contiguous zone, continental shelf, exclusive economic zone, high seas.

5. Individuals: Nationality, statelessness; Human rights and procedures available for their enforcement.

6. Territorial jurisdiction of States, extradition and asylum.

7. Treaties: Formation, application, termination and reservation.

8. United Nations: Its principal organs, powers, functions and reform.

9. Peaceful settlement of disputes – different modes.

10. Lawful recourse to force: aggres-

sion, self-defence, intervention.

11. Fundamental principles of international humanitarian law – International conventions and contemporary developments.

12. Legality of the use of nuclear weapons; ban on testing of nuclear weapons; Nuclear – non proliferation treaty, CTBT.

13. International terrorism, state sponsored terrorism, hijacking, international criminal court.

14. New international economic order and monetary law: WTO, TRIPS, GATT, IMF, World Bank.

15. Protection and improvement of the human environment: International efforts.

**PAPER - II****Law of Crimes**

1. General principles of criminal liability: Mens rea and actus reus, mens rea in statutory offences.

2. Kinds of punishment and emerging trends as to abolition of capital punishment.

3. Preparation and criminal attempt.

4. General exceptions.

5. Joint and constructive liability.

6. Abetment.

7. Criminal conspiracy.

8. Offences against the State.

9. Offences against public tranquility.

10. Offences against human body.

11. Offences against property.

12. Offences against women.

13. Defamation.

14. Prevention of Corruption Act, 1988.

15. Protection of Civil Rights Act 1955 and subsequent legislative developments.

16. Plea bargaining.

**Law of Torts**

1. Nature and definition.

2. Liability based upon fault and strict liability; Absolute liability.

3. Vicarious liability including State liability.

4. General defences.

5. Joint tortfeasors.

6. Remedies.

7. Negligence.

8. Defamation.

9. Nuisance.

10. Conspiracy.

11. False imprisonment.

12. Malicious prosecution.

13. Consumer Protection Act, 1986.

**Law of Contracts and Mercantile Law**

1. Nature and formation of contract/E-contract.

2. Factors vitiating free consent.

3. Void, voidable, illegal and unenforceable agreements.

4. Performance and discharge of contracts.

5. Quasi- Contracts.

6. Consequences of breach of contract.

7. Contract of indemnity, guarantee and insurance.

8. Contract of agency.

9. Sale of goods and hire purchase.

10. Formation and dissolution of partnership.

11. Negotiable Instruments Act, 1881.

12. Arbitration and Conciliation Act, 1996.

13. Standard form contracts.

**Contemporary Legal Developments**

1. Public Interest Litigation.

2. Intellectual property rights – Concept, types/prospects.

3. Information Technology Law including Cyber Laws – Concept, purpose/prospects.

4. Competition Law- Concept, purpose/ prospects.

5. Alternate Dispute Resolution – Concept, types/prospects.

6. Major statutes concerning environmental law.

7. Right to Information Act.

8. Trial by media.

**Literature of the following languages**  
**Note (i) : A candidate may be required to answer some or all the questions in the language concerned.**

**Note (ii) : In regard to the languages included in the Eighth Schedule to Constitution, the scripts will be the same as indicated in Section-II (B) of Appendix I relating to Main Examination.**

**Note (iii) : Candidates should note that the questions not required to be answered in a specific language will have to be answered in the language medium indicated by them for answering papers on Essay, General Studies and Optional Subjects.**

## ASSAMESE

### Paper-I

(Answers must be written in Assamese)

#### Section-A

#### Language

- History of the origin and development of the Assamese language-its position among the Indo-Aryan Languages-periods in its history.
- Developments of Assamese prose.
- Vowels and consonants of the Assamese languages-rules of phonetic changes with stress on Assamese coming down from Old Indo-Aryan.
- Assamese vocabulary-and its sources.
- Morphology of the language-conjugation-enclitic definitives and pleonastic suffixes.
- Dialectal divergences-the standard colloquial and the Kamrupi dialect in particulars.
- Assamese scripts-its evolution through the ages till 19th century A.D.

#### Section-B

#### Literary Criticism and Literary History

- Principles of Literary criticism upto New criticism.
- Different literary genres.
- Development of literary forms in Assamese.
- Development of literary criticism in Assamese.
- Periods of the literary history of Assam from the earliest beginnings, i.e. from the period of the charyageets with their socio-cultural background : the proto Assamese-Pre-Sankaradeva-Sankaradeva-post Sankaradeva-Modern period (from the coming of the Britishers)-Post-Independence period. Special emphasis is to be given on the Vaisnavite period, the gonaki and the post-Independence period.

### Paper-II

This paper will require first-hand reading of the texts prescribed and will be designed to test the candidates' critical ability. Answers must be written in Assamese

#### Section-A

- Ramayana (Ayodhya Kānda only)-by Madhava Kandali.  
 Pārijāt-Harana-by Sankaradeva.  
 Rāsakridā-by Sankaradeva (From Kirtana Ghosa).  
 Bargeet-by Madhavadeva  
 Rājasūya-by Madhavadeva.  
 Kāthā-Bhāgavata (Books I and II)-by Baikunthanath Bhattacharyya.  
 Gurucarit-Kathā (Sankaradeva's Part only)-ed. by Maheswar Neog.

#### Section-B

- Mor Jeevan Soñwaran-by Lakshminath Bezbaroa.  
 Kripābar Barbaruār Kākatār Topola-by Lakshminath Bezbaroa.  
 Pratimā-by Chandra Kumar Agarwalla.  
 Gāoñburhā-by Padmanath Gohain Barua.  
 Monamatī-by Rajanikanta Bordoloi.  
 Purani Asamīyā Sāhitya-by Banikanta

- Kakati.  
 Karengar Ligirī-by Jyotiprasad Agarwalla  
 Jeevanar Bātat-by Bina Barua (Birinchī Kumar Barua)  
 Mrityunjoy-by Birendrakumar Bhattacharyya  
 Samrāt-by Navakanta Barua.

## BENGALI

### Paper-I

History of Language and Literature.  
 Answers must be written in Bengali.

#### Section-A

Topics from the History of Bangla language

- The chronological track from Proto Indo-European to Bangla (Family tree with branches and approximate dates).
- Historical stages of Bangla (Old, Middle, New) and their linguistic features.
- Dialects of Bangla and their distinguishing characteristics.
- Elements of Bangla Vocabulary.
- Forms of Bangla Literary Prose-Sadhu and Chalit.
- Processes of language change relevant for Bangla.  
 Apinihiti (Anaptyxis), Abhishruti (umlaut), Murdhanyibhavan (cerebralization), Nasikyibhavan (Nasalization), Samibhavan (Assimilation), Sadrishya (Analogy), Svaragama (Vowel insertion)-Adi Svaragama, Madhya Svaragama or Svarabhakti, Antya Svaragama, Svarasangati (Vowel harmony), y-shruti and w-shruti.
- Problems of standardization and reform of alphabet and spelling, and those of transliteration and Romanization.
- Phonology, Morphology and Syntax of Modern Bangla.

(Sounds of Modern Bangla, Conjunctions; word formations, compounds; basic sentence patterns.)

#### Section-B

Topics from the History of Bangla Literature.

- Periodization of Bangla Literature : Old Bangla and Middle Bangla.
- Points of difference between modern and pre-modern Bangla Literature.
- Roots and reasons behind the emergence of modernity in Bangla Literature.
- Evolution of various Middle Bangla forms : Mangal kavyas, Vaishnava lyrics, Adapted narratives (Ramayana, Mahabharata, Bhagavata) and religious biographies.
- Secular forms in middle Bangla literature.
- Narrative and lyric trends in the nineteenth century Bangla poetry.
- Development of prose.
- Bangla dramatic literature (nineteenth century, Tagore, Post-1944 Bangla drama).
- Tagore and post-Tagoreans.
- Fiction, major authors : (Bankimchandra, Tagore, Saratchandra, Bibhutibhusan, Tarasankar, Manik).
- Women and Bangla literature : creators and created.

### Paper-II

Prescribed texts for close study.

Answers must be written in Bengali.

#### Section-A

- Vaishnava Padavali (Calcutta University)  
 Poems of Vidyapati, Chandidas, Jnanadas, Govindadas and Balaramdas.
- Chandimangal Kalketu episode by Mukunda (Sahitya Akademi).
- Chaitanya Charitamrita Madya Lila, by Krishnadas Kaviraj (Sahitya Akademi).

- Meghnadbhadh Kavya by Madhusudan Dutta.
- Kapalkundala by Bankimchandra Chattarjee.
- Samya and Bangadesher Krishak by Bankimchandra Chatterjee.
- Sonar Tari by Rabindranath Tagore.
- Chhinnapatravali by Rabindranath Tagore.

### Section-B

- Raktakarabi by Rabindranath Tagore.
- Nabajatak by Rabindranath Tagore.
- Grihadaha by Saratchandra Chatterjee.
- Prabandha Samgraha Vol. 1, by Pramatha Choudhuri.
- Aranyak by Bibhutibhusan Banerjee
- Short stories by Manik Bandyopadhyay : Atashi Mami, Pragaitihasi, Holud-Pora, Sarisrip, Haraner Natjamai, Chhoto-Bokulpurer Jatri, Kustharogir Bou, Jakey Ghush Ditey Hoy.
- Shrestha Kavita by Jibanananda Das.
- Jagori by Satinath Bhaduri.
- Ebam Indrajit by Badal Sircar.

## BODO

### Paper-I

History of Bodo Language and Literature

(Answers must be written in Bodo)

#### Section-A

#### History of Bodo Language

- Homeland, language family, its present status and its mutual contact with Assamese.
- (a) Phonemes : Vowel and Consonant Phonemes  
 (b) Tones.
- Morphology : Gender, Case & Case endings, Plural suffix, Definitives, Verbal suffix.
- Vocabulary and its sources.
- Syntax : Types of sentences, Word Order.
- History of Scripts used in writing Bodo Language since inception.

#### Section-B

#### History of Bodo Literature

- General introduction of Bodo folk literature.
- Contribution of the Missionaries.
- Periodization of Bodo Literature.
- Critical analysis of different genre (Poetry, Novel, Short Story and Drama)
- Translation Literature.

### Paper-II

The Paper will require first-hand reading of the texts prescribed and will be designed to test the critical ability of the candidates.

(Answers must be written in Bodo)

#### Section-A

- Khonthai-Methai (Edited by Madaram Brahma & Rupnath Brahma).
- Hathorkhi-Hala (Edited by Pramod Chandra Brahma)
- Boroni Gudi Sibsa Arw Aroz : Madaram Brahma.
- Raja Nilambar : Dwarendra Nath Basumatary.
- Bibar (Prose section) (Edited by Satish Chandra Basumatary)

#### Section-B

- Gibi Bithai (Aida Nwi) : Bihuram Boro
- Radab : Samar Brahma Chaudhury
- Okhrang Gongse Nangou : Brajendra Kumar Brahma
- Baisagu Arw Harimu : Laksheswar Brahma.
- Gwdan Boro : Manoranjan Lahary
- Jujaini Or : Chittaranjan Muchahary
- Mwihoor : Dharanidhar Wary
- Hor Badi Khwmsi : Kamal Kumar Brahma
- Jaolia Dewan : Mangal Singh

- Hozowary
- Hagra Guduni Mwi : Nilkamal Brahma.

## DOGRI

### Paper-I

History of Dogri Language and Literature

(Answers must be written in Dogri)

#### Section-A

#### History of Dogri Language

- Dogri language : Origin and development through different stages.
- Linguistic boundaries of Dogri and its dialects.
- Characteristic features of Dogri language.
- Structure of Dogri Language :  
 (a) Sound Structure : Segmental : Vowels and Consonants  
 Non-Segmental : Length, Stress, Nasalization, Tone and Juncture.  
 (b) Morphology of Dogri :  
 (i) Inflection Categories : Gender, Number, Case, Person, Tense and Voice.  
 (ii) Word Formation : use of prefixes, infixes and suffixes.  
 (iii) Vocabulary : Tatsam, tadbhav, foreign and regional.  
 (c) Sentence Structure : Major Sentence - types and their constituents, agreement and concord in Dogri syntax.
- Dogri Language and Scripts : Dogre/Dogra Akkhar, Devanagari and Persian.

#### Section-B

#### History of Dogri Literature :

- A brief account of Pre-independence Dogri Literature : Poetry & Prose.
- Development of modern Dogri Poetry and main trends in Dogri Poetry.
- Development of Dogri short-story, main trends & prominent short-story writers.
- Development of Dogri Novel, main trends & contribution of Dogri Novelists.
- Development of Dogri Drama & contribution of prominent Playwrights.
- Development of Dogri Prose : Essays, Memoirs & Travelogues.
- An introduction to Dogri Folk literature - Folk songs, Folk tales & Ballads.

### Paper-II

Textual Criticism of Dogri Literature (Answers must be written in Dogri)

#### Section-A

#### Poetry

- Azadi Pahlle Di Dogri Kavita.  
 The following poets :  
 Devi Ditta, Lakkhu, Ganga Ram, Ramdhan, Hardutt, Pahari Gandhi Baba Kanshi Ram & Permanand Almast.
- Modern Dogri Poetry  
 Azadi Bad Di Dogri Kavita  
 The following poets :  
 Kishan Smailpuri, Tara Smailpuri, Mohan Lal Sapolia, Yash Sharma, K.S. Madhukar, Padma Sachdev, Jitendra Udhamपुरi, Charan Singh and Prakash Premi.
- Sheeraza Dogri Number 102, Ghazal Ank.  
 The following poets :  
 Ram Lal Sharma, Ved Pal Deep, N.D. Jamwal, Shiv Ram Deep, Ashwini Magotra and Virendra Kesar.
- Sheeraza Dogri Number 147, Ghazal Ank  
 The following poets :  
 R.N. Shastri, Jitendra Udhamपुरi, Champa Sharma and Darshan Darshi.
- Ramayan (Epic) by Shambhu Nath Sharma (upto Ayodhya Kand)
- Veer Gulab (Khand Kavya) by Dinoo Bhai Pant.



**Section-B**

**Prose**

1. Ajakani Dogri Kahani  
The following short story writers :  
Madan Mohan Sharma, Narendra Khajuria and B.P. Sathe.
2. Ajakani Dogri Kahani Part-II  
The following Short Story writers :  
Ved Rahi, Narsingh Dev Jamwal, Om Goswami, Chhatrapal, Lalit Magotra, Chaman Arora and Ratan Kesar.
3. Khatha Kunj Bhag II  
The following Story writers :  
Om Vidyarthi, Champa Sharma and Krishan Sharma
4. Meel Patthar (collection of short stories) by Bandhu Sharma
5. Kaidi (Novel) by Desh Bandhu Dogra Nutan
6. Nanga Rukkh (Novel) by O.P. Sharma Sarathi.
7. Nayaan (Drama) by Mohan Singh.
8. Satrang (A collection of one act plays)  
The following pay wrights :  
Vishwa Nath Khajuria, Ram Nath Shastri, Jitendra Sharma, Lalit Magotra and Madan Mohan Sharma.
9. Dogri Lalit Nibandh  
The following authors :  
Vishwa Nath Khajuria, Narayan Mishra, Balkrishan Shastri, Shiv Nath, Shyam Lal Sharma, Lakshmi Narayan, D.C. Prashant, Ved Ghai, Kunwar Viyogi.

**ENGLISH**

The syllabus consists of two papers, designed to test a first-hand and critical reading of texts prescribed from the following periods in English Literature : Paper I : 1600-1900 and Paper II : 1900-1990.

There will be two compulsory questions in each paper : a) A short-notes question related to the topics for general study, and b) A critical analysis of UNSEEN passages both in prose and verse.

**Paper-I**

**Answers must be written in English. Texts for detailed study are listed below. Candidates will also be required to show adequate knowledge of the following topics and movements :**

The Renaissance : Elizabethan and Jacobean Drama; Metaphysical Poetry; The Epic and the Mock-epic; Neo-classicism; Satire; The Romantic Movement; The Rise of the Novel; The Victorian Age.

**Section-A**

1. William Shakespeare : **King Lear** and **The Tempest**.
2. John Donne. The following poems :  
- Canonization;  
- Death be not proud;  
- The Good Morrow;  
- On his Mistress going to bed;  
- The Relic;
3. John Milton : **Paradise Lost**, I, II, IV, IX
4. Alexander Pope. **The Rape of the Lock**.
5. William Wordsworth. The following poems:  
- Ode on Intimations of Immortality.  
- Tintern Abbey.  
- Three years she grew.  
- She dwelt among untrodden ways.  
- Michael.  
- Resolution and Independence.  
- The World is too much with us.  
- Milton, thou shouldst be living at this hour.  
- Upon Westminster Bridge.
6. Alfred Tennyson : **In Memoriam**.
7. Henrik Ibsen : **A Doll's House**.

**Section-B**

1. Jonathan **Swift**. **Gulliver's Travels**.
2. Jane Austen. **Pride and Prejudice**.
3. Henry Fielding. **Tom Jones**.
4. Charles Dickens. **Hard Times**.

5. George Eliot. **The Mill on the Floss**.
6. Thomas Hardy. **Tess of the d'Urbervilles**.
7. Mark Twain. **The Adventures of Huckleberry Finn**.

**Paper-II**

**Answers must be written in English. Texts for detailed study are listed below. Candidates will also be required to show adequate knowledge of the following topics and movements :**  
Modernism; Poets of the Thirties; The stream-of-consciousness Novel; Absurd Drama; Colonialism and Post-Colonialism; Indian Writing in English; Marxist, Psychoanalytical and Feminist approaches to literature; Post-Modernism.

**Section-A**

1. William Butler Yeats. The following poems:  
- Easter 1916  
- The Second Coming  
- A Prayer for my daughter.  
- Sailing to Byzantium.  
- The Tower.  
- Among School Children.  
- Leda and the Swan.  
- Meru
2. T.S. Eliot. The following poems :  
- The Love Song of J.Alfred Prufrock  
- Journey of the Magi.  
- Burnt Norton.
3. W.H. Auden. The following poems :  
- Partition  
- Musee des Beaux Arts  
- in Memory of W.B. Yeats  
- Lay your sleeping head, my love  
- The Unknown Citizen  
- Consider  
- Mundus Et Infans  
- The Shield of Achilles  
- September 1, 1939  
- Petition.
4. John Osborne : Look Back in Anger.
5. Samuel Beckett. Waiting for Godot.
6. Philip Larkin. The following poems :  
- Next  
- Please  
- Deceptions  
- Afternoons  
- Days  
- Mr. Bleaney
7. A.K. Ramanujan. The following poems :  
- Looking for a Causim on a Swing  
- A River  
- Of Mothers, among other Things  
- Love Poem for a Wife 1  
- Small-Scale Reflections on a Great House  
- Obituary

(All these poems are available in the anthology Ten Twentieth Century Indian Poets, edited by R. Parthasarthy, published by Oxford University Press, New Delhi).

**Section-B**

1. Joseph Conrad. Lord Jim
2. James Joyce. Portrait of the Artist as a Young Man.
3. D.H. Lawrence. Sons and Lovers.
4. E.M. Forster. A Passage to India.
5. Virginia Woolf. Mrs Dalloway.
6. Raja Rao. Kanthapura.
7. V.S. Naipal. A House for Mr. Biswas.

**GUJARATI**

**Paper-I**

**(Answers must be written in Gujarati)**

**Section-A**

- Gujarati Language : Form and history**
1. History of Gujarati Language with special reference to New Indo-Aryan i.e. last one thousand years.
  2. Significant features of the Gujarati language: Phonology, morphology and syntax.

3. Major dialects: Surti, Pattani, charotari and Saurashtri.
- History of Gujarati Literature Medieval :**
4. Jaina tradition
  5. Bhakti tradition: Sagun and Nirgun (Jnanmargi)
  6. Non-sectarian tradition (Laukik parampara)

**Modern:**

7. Sudharak yug
8. Pandit yug
9. Gandhi yug
10. Anu-Gandhi yug
11. Adhunik yug

**Section-B**

**Literary Forms :** (Salient features, history and development of the following literary forms):

**(a) Medieval**

1. Narratives: Rasa, Akhyan and Padyavarta
2. Lyrical: Pada

**(b) Folk**

3. Bhavai

**(c) Modern**

4. Fiction: Novel and short story
5. Drama
6. Literary Essay
7. Lyrical Poetry

**(d) Criticism**

8. History of theoretical Gujarati criticism
9. Recent research in folk tradition.

**Paper-II**

**(Answers must be written in Gujarati)**  
The paper will require first hand reading of the texts prescribed and will be designed to test the critical ability of the candidate.

**Section-A**

1. **Medieval**  
(i) Vasantvilas phagu-Ajnatkrut  
(ii) Kadambari-Bhalan  
(iii) Sudamacharitra-Premanand  
(iv) Chandrachandratini varta-Shamal  
(v) Akhegeeta-Akho
2. **Sudharakyug & Pandityug**  
(vi) Mari Hakikat-Narmadashankar Dave  
(vii) Farbasveerah- Dalpatram  
(viii) Saraswatichandra-Part-I Govardhanram Tripathi  
(ix) Purvalap- 'Kant' (Manishankar Ratnaji Bhatt)
- (x) Raino Parvat-Ramanbhai Neelkanth

**Section-B**

1. **Gandhiyug & Anu Gandhiyug**  
(i) Hind Swaraj-Mohandas Kar-mac-hand Gandhi  
(ii) Patanni Prabhuta- Kanhaiyalal Munshi  
(iii) Kavyani Shakti- Ramnarayan Vishwanath Pathak  
(iv) Saurashtrani Rasdhar Part 1- Zaverchand Meghani  
(v) Manvini Bhavai-Pannalal Patel  
(vi) Dhvani-Rajendra Shah
2. **Adhunik yug**  
(vii) Saptapadi-Umashankar Joshi  
(viii) Janantike- Suresh Joshi  
(ix) Ashwatthama- Sitanshu Yashaschandra

**HINDI**

**Paper-I**

**(Answers must be written in Hindi)**

**Section-A**

1. **History of Hindi Language and Nagari Lipi.**  
I. Grammatical and applied forms of Apbhransh, Awahatta & Arambhik Hindi.  
II. Development of Braj and Awadhi as literary language during medieval period.  
III. Early form of Khari-boli in Siddha-Nath Sahitya, Khusero, Sant Sahitaya, Rahim etc. and Dakhni Hindi.  
IV. Development of Khari-boli and Nagari Lipi during 19th Century.  
V. Standardisation of Hindi Bhasha &

- Nagari Lipi.
- VI. Development of Hindi as national Language during freedom movement.
- VII. The development of Hindi as a National Language of Union of India.
- VIII. Scientific & Technical development of Hindi Language.
- IX. Prominent dialects of Hindi and their inter- relationship.
- X. Salient features of Nagari Lipi and the efforts for its reform & Standard form of Hindi.
- XI. Grammatical structure of Standard Hindi.

**Section-B**

2. **History of Hindi Literature.**  
I. The relevance and importance of Hindi literature and tradition of writing History of Hindi Literature.  
II. Literary trends of the following four periods of history of Hindi Literature.  
A. Adikal-Sidh, Nath and Raso Sahitya. Prominent poets-Chandvardai, Khusaro, Hemchandra, Vidyapati.  
B. Bhaktikal-Sant Kavyadhara, Sufi Kavyadhara, Krishna Bhaktidhara and Ram Bhaktidhara. Prominent Poets-Kabir, Jayasi, Sur & Tulsi.  
C. Ritikal-Ritikavya, Ritibaddhakavya & Riti Mukta Kavya. Prominent Poets-Keshav, Bihari, Padmakar and Ghananand.  
D. Adhunik Kal  
a. Renaissance, the development of Prose, Bharatendu Mandal.  
b. Prominent Writers : Bharatendu, Bal Krishna Bhatt & Pratap Narain Mishra.  
c. Prominent trends of modern Hindi Poetry : Chhayavad, Pragativad, Proyogvad, Nai Kavita, Navgeet and Contemporary poetry and Janvadi Kavita. Prominent Poets : Maithili Sharan Gupta, Prasad, Nirala, Mahadevi, Dinkar, Agyeya, Muktibodh, Nagarjun.
- III. **Katha Sahitya**  
A. Upanyas & Realism  
B. The origin and development of Hindi Novels.  
C. Prominent Novelists : Premchand, Jainendra, Yashpal, Renu and Bhism Sahani.  
D. The origin and development of Hindi short story.  
E. Prominent short Story Writers : Premchand, Prasad, Agyeya, Mohan Rakesh & Krishna Shobti.
- IV. **Drama & Theatre**  
A. The origin & Development of Hindi Drama.  
B. Prominent Dramatists : Bharatendu, Prasad, Jagdish Chandra Mathur, Ram Kumar Verma, Mohan Rakesh.  
C. The development of Hindi Theatre.  
V. **Criticism**  
A. The origin and development of Hindi criticism : Saiddhantik, Vyavharik, Pragativadi, Manovishleshnavadi & Nai Alochana.  
B. Prominent critics : Ramchandra Shukla, Hajari Prasad Dwivedi, Ram Vilas Sharma & Nagendra.  
VI. The other forms of Hindi prose-Lalit Nibandh, Rekhachitra, Sansmaran, Yatra-vrittant.

**Paper-II**

**(Answers must be written in Hindi)**  
This paper will require first hand reading of prescribed texts and will test the critical ability of the candidates.

**Section-A**

1. Kabir : Kabir Granthawali, Ed, Shyam Sundar Das (First hundred Sakhis.)
2. Surdas : Bhramar Gitsar, Ed. Ramchandra Shukla (First hundred Padas)
3. Tulsidas : Ramchrit Manas (Sundar Kand) Kavitawali (Uttar Kand).

4. Jayasi: Padmawat Ed. Shyam Sundar Das (Sinhala Dwip Khand & Nagmativiyog Khand)
5. Bihari: Bihari Ratnakar Ed. Jagannath Prasad Ratnakar (First 100 Dohas)
6. Maithili: Bharat Bharati Sharan Gupta
7. Prasad: Kamayani (Chinta and Sharaddha Sarg)
8. Nirala: Rag-Virag, Ed. Ram Vilas Sharma (Ram Ki Shakti Puja &

- Kukurmutta).
9. Dinkar: Kurushetra
10. Agyeya: Angan Ke Par Dwar (Asadhya Vina)
11. Muktiboth: Brahma Rakshas
12. Nagarjun: Badal Ko Ghirte Dekha Hai, Akal Ke Bad, Harijan Gatha.

### Section-B

1. Bharatendu: Bharat Durdasha
2. Mohan Rakesh: Ashad Ka Ek Din
3. Ramchandra Shukla: Chintamani (Part I) (Kavita Kya Hai] Shradha Aur Bhakti)
4. Dr. Satyendra: Nibandh Nilaya-Bal Krishna Bhatt, Premchand, Gulab Rai, Hajari Prasad Dwivedi, Ram Vilas Sharma, Agyeya, Kuber Nath Rai.
5. Premchand: Godan, Premchand ki Sarvashreshtha Kahaniyan, Ed. Amrit Rai/Manjusha - Prem Chand ki Sarvashreshtha Kahaniyan, Ed. Amrit Rai.
6. Prasad: Skandgupta
7. Yashpal: Divya
8. Phaniswar Nath Renu: Maila Anchal
9. Mannu Bhandari: Mahabhoj
10. Rajendra Yadav: Ek Dunia Samanantar (All Stories)

## KANNADA

### Paper-I

(Answers must be written in Kannada)

### Section-A

- A. History of Kannada Language**  
What is Language? General characteristics of Language. Dravidian Family of Languages and its specific features, Antiquity of Kannada Language, Different Phases of its Development. Dialects of Kannada Language: Regional and Social Various aspects of development of Kannada Language: phonological and Semantic changes. Language borrowing.
- B. History of Kannada Literature**  
Ancient Kannada literature: Influence and Trends. Poets for study: Specified poets from Pampa to Ratnakara Varni are to be studied in the light of contents, form and expression: Pampa, Janna, Nagachandra.

Medieval Kannada literature: Influence and Trends.

Vachana literature: Basavanna, Akka Mahadevi.

Medieval Poets: Harihara, Raghavanka, Kumar-Vyasa.

Dasa literature: Purandra and Kanaka. Sangataya: Ratnakaravarni

- C. Modern Kannada literature:** Influence, trends and ideologies, Navodaya, Pragatishila, Navya, Dalita and Bandaya.

### Section-B

- A. Poetics and literary criticism:** Definition and concepts of poetry: Word, Meaning, Alankara, Reeti, Rasa, Dhvani, Auchitya. Interpretations of Rasa Sutra. Modern Trends of literary criticism: Formalist, Historical, Marxist, Feminist, Post-colonial criticism.

## B. Cultural History of Karnataka

Contribution of Dynasties to the culture of Karnataka: Chalukyas of Badami and Kalyani, Rashtrakutas, Hoysalas, Vijayanagara rulers, in literary context. Major religions of Karnataka and their cultural contributions. Arts of Karnataka: Sculpture, Architecture, Painting, Music, Dance-in the literary context. Unification of Karnataka and its impact on Kannada literature.

### Paper-II

(Answers must be written in Kannada)  
The paper will require first-hand reading of the Texts prescribed and will be designed to test the critical ability of the candidates.

### Section-A

#### A. OLD KANNADA LITERATURE

1. Vikramaarjuna Vijaya of Pampa (cantos 12 & 13), (Mysore University Pub.)
2. Vaddaraadhane (Sukumaraswamyia Kathe, Vidyutchorana Kathe)

#### B. Medieval Kannada Literature:

1. Vachana Kammata, Ed: K. Marulasiddappa K.R. Nagaraj (Bangalore University Pub.)
2. Janapriya Kanakasamputa, Ed. D. Javare Gowda (Kannada and Culture Directorate, Bangalore)
3. Nambiyannana Ragale, Ed., T.N. Sreekantaiah (Ta.Vem. Smaraka Grantha Male, Mysore)
4. Kumaravyasa Bharata: Karna Parva (Mysore University)
5. Bharatesha Vaibhava Sangraha Ed. Ta. Su. Shama Rao (Mysore University)

### Section-B

#### A. Modern Kannada Literature

1. Poetry: Hosagannada Kavite, Ed: G.H. Nayak (Kannada Saahitya Parishattu, Bangalore)
2. Novel: Bettada Jeeva-Shivarama Karanta Madhavi-Arupama Niranjana Odalaala-Devanuru Mahadeva
3. Short Story: Kannada Sanna Kathegalu, Ed. G.H. Nayak (Sahitya Academy, New Delhi).
4. Drama: Shudra Tapaswi-Kuvempu. Tughlak-Girish Karnad.
5. Vichara Saahitya: Devaru-A.N. Moorty Rao (Pub: D.V.K. Moorty, Mysore.)

#### B. Folk Literature:

1. Janapada Swaroopa-Dr. H.M. Nayak. (Ta. Vem. Smaraka Grantha Male, Mysore.)
2. Janapada Geetaanjali-Ed.D. Javare Gowda. (Pub: Sahitya Academy, New Delhi.)
3. Kannada Janapada Kathegalu-Ed. J.S. Paramashivaiah, (Mysore University.)
4. Beedi Makkalu Beledo. Ed. Kalegowda Nagavara (Pub: Bangalore University.)
5. Savirada Oगतugalu-Ed: S.G. Imrapura.

## KASHMIRI

### Paper-I

(Answers must be written in Kashmiri)

### Section-A

1. Genealogical relationship of the Kashmiri language: various theories.
2. Areas of occurrence and dialects (geographical/social)
3. Phonology and grammar:  
i. Vowel and consonant system;  
ii. Nouns and pronouns with various case inflections;  
iii. Verbs: various types and tenses.
4. Syntactic structure:  
i. Simple, active and declarative statments;  
ii. Coordination;  
iii. Relativisation.

### Section-B

1. Kashmiri literature in the 14th century (Socio-cultural and intellectual background with special reference to Lal Dyad and Sheikhul Alam)
2. Nineteenth century Kashmiri literature (development of various genres: vatsun; ghazal; and mathnavi).
3. Kashmiri literature in the first half of the twentieth century (with special reference to Mahjoor and Azad; various literary influences).
4. Modern Kashmiri literature (with special refernece to the development of the short story, drama, novel and nazm).

### Paper-II

(Answers must be written in Kashmiri)

### Section-A

1. Intensive study of Kashmiri poetry upto the nineteenth century:  
i) Lal Dyad  
ii) Sheikhul Aalam  
iii) Habba Khatoon
2. Kashmiri poetry: 19th Century  
i) Mahmood Gami (Vatsans)  
ii) Maqbool Shah (Gulrez)  
iii) Rasool Mir (Ghazals)  
iv) Abdul Ahad Nadim (N'at)  
v) Krishanjoo Razdan (Shiv Lagun)  
vi) Sufi Poets (Text in Sanglaab, published by the Deptt. of Kashmiri, University of Kashmir)
3. Twentieth Century Kashmiri poetry (text in Azich Kashir Shairi, published by the Deptt. of Kashmiri, University of Kashmir)
4. Literary criticism and research work: development and various trends.

### Section-B

1. An analytical study of the short story in Kashmiri.  
i) Afsana Majmu'a, published by the Deptt. of Kashmiri, University of Kashmir.  
ii) Kashur Afsana Az, published by the Sahitya Akademi  
iii) Hamasar Kashur Afsana, published by the Sahitya Akademi
- The following short story writers only: Akhtar Mohi-ud-Din, Kamil, Hari Krishan Kaul, Hraday Kaul Bharti, Bansi Nirdosh, Gulshan Majid.

2. Novel in Kashmiri:  
i) Mujrim by G.N. Gowhar  
ii) Marun-Ivan Ilyichun, (Kashmiri version of Tolstoy's The Death of Ivan Ilyich (Published by Kashmiri Deptt).)
3. Drama in Kashmiri  
i) Natuk Kariv Band, by Hari Krishan Kaul  
ii) Qk Angy Natuk, ed. Motilal Keemu. published by Sahitya Akademi.  
iii) Razi Oedipus, tr. Naji Munawar, published by Sahitya Akademi.
4. Kashmiri Folk Literature:  
i) Kashur Luki Theatre by Mohammad Subhan Bhagat, published by Deptt. of Kashmiri, University of Kashmir.  
ii) Kashiry Luki Beeth (all volumes) published by the J & K Cultural Academy.

## KONKANI

### Paper-I

(Answers must be written in Konkani)

### Section-A

#### History of the Konkani Language:

- (i) Origin and development of the language and influences on it.
- (ii) Major variants of Konkani and their linguistic features.
- (iii) Grammatical and lexicographic work in Konkani, including a study of cases, adverbs, indeclinables and voices.
- (iv) Old Standard Konkani, new Standard and standardisation problems.

### Section-B:

#### History of Konkani literature:

Candidates would be expected to be well-acquainted with Konkani literature and its social and cultural background and consider the problems and issues arising out of them.

- (i) History of Konkani literature from its probable source to the present times, with emphasis on its major works, writers and movements.
- (ii) Social and cultural background of the making of Konkani literature from time to time.
- (iii) Indian and Western influences on Konkani literature from the earliest to modern times.
- (iv) Modern literary trends in the various genres and regions including a study of Konkani folklore.

### Paper-II

(Answers must be written in Konkani)

Textual Criticism of Konkani Literature  
The paper will be designed to test the candidate's critical and analytical abilities. Candidates would be expected to be well-acquainted with Konkani Literature and required to have a first-hand reading of the following texts:

### Section-A

#### Prose

1. a) Konkani Mansagangotri (excluding poetry) ed. by Prof. Olivinho Gomes  
b) Old Konkani language and literature-the Portuguese Role
2. a) Otmoo Denvcharak-a novel by A.V da Cruz.  
b) Vadoll ani Varem-A novel by Antonio Pereira.  
c) Devache Kurpen-a novel by V J P Saldanha.
3. a) Vajralikhani-Shenoy Goem-bab-An anthology-ed. by Shantaram Varde Valavalikar  
b) Konkani Lalit Niband-Essays-ed. by Shyam Verenkar  
c) Teen Dasakam-An Anthology-ed. by Chandrakant Keni.
4. a) Demand-Drama-by Pundalik Naik  
b) Kadambini- A miscellany of modern Prose-ed. by Prof. OJF Gomes & Smt. P.S. Tadkodkar.  
c) Ratha Tujeo Ghudieo-by Smt. Jayanti Naik.

### Section-B

#### Poetry

1. a) Ev ani Mori: Poetry by Eduardo Bruno de Souza.  
b) Abravanchem Yadnyadan-by Luis Mascarenhas.
2. a) Godde Ramayan-ed.by R.K. Rao  
b) Ratnahar I &II-collection of poems-ed. R.V. Pandit.
3. a) Zayo Zuyo-poems-Manohar L. Sardessai.  
b) Kanadi Mati Konkani Kavi-Anthology of Poems-ed. Pratap Naik.
4. a) Adrushatache Kalle-Poems by Pandurang Bhangui.  
b) Yaman-Poems by Madhav Borkar

## MAITHILI

### Paper-I

History of Maithili Language and its Literature

(Answer to be written in Maithili)

### Part-A

#### History of Maithili Language

1. Place of Maithili in Indo-European language family.
2. Origin and development of Maithili language. (Sanskrit, Prakrit, Avhatt, Maithili)
3. Periodic division of Maithili Language. (Beginning, Middle era, Modern era)
4. Maithili and its different dialects.
5. Relationship between Maithili and other Eastern languages (Bengali, Assamese, Oriya).
6. Origin and development of Tirhuta Script.
7. Pronouns and Verbs in Maithili Language.

**Part-B****History of Maithili Literature**

1. Background of Maithili Literature (Religious, economic, social, cultural).
2. Periodic division of Maithili literature.
3. Pre-Vidyapati Literature.
4. Vidyapati and his tradition.
5. Medieval Maithili Drama (Kirtaniya Natak, Ankai Nat, Maithili dramas written in Nepal).
6. Maithili Folk Literature (Folk Tales, Folk Drama, Folk Stories, Folk Songs).
7. Development of different literary forms in modern era.
  - (a) Prabandh-kavya
  - (b) Muktak-kavya
  - (c) Novel
  - (d) Short Story
  - (e) Drama
  - (f) Essay
  - (g) Criticism
  - (h) Memoirs
  - (i) Translation
8. Development of Maithili Magazines and Journals.

**Paper-II****(Answers must be written in Maithili)**

The paper will require first-hand reading of the prescribed texts and will test the critical ability of the candidates.

**Part-A**

1. Vidyapati Geet-Shati-Publisher : Sahitya Akademi, New Delhi (Lyrics- 1 to 50)
2. Govind Das Bhajanavali-Publisher : Maithili Academy, Patna (Lyrics - 1 to 25).
3. Krishnajanm - Manbodh
4. Mithilabhasha Ramayana - Chanda Jha (only Sunder-Kand)
5. Rameshwar Charit Mithila Ramayan - Lal Das (only Bal-kand)
6. Keechak-Vadh-Tantra Nath Jha.
7. Datta-Vati-Surendra Jha 'Suman' (only 1st and 2nd Cantos).
8. Chitra-Yatri
9. Samakaleen Maithili Kavita - Publisher : Sahitaya Akademi, New Delhi.

**Part-B**

10. Varna Ratnakar - Jyotirishwar (only 2nd Kallol)
11. Khatrar Kakak Tarang - Hari Mohan Jha.
12. Lorik-Vijaya-Manipadma
13. Prithvi Putra-Lalit
14. Bhaphait Chahak Jinagi-Sudhanshu 'Shekar' Choudhary.
15. Kirti Rajkamlak-Publisher : Maithili Academy, Patna (First Ten Stories only).
16. Katha-Sangrah-Publisher : Maithili Academy, Patna.

**MALAYALAM****Paper-I****(Answers must be written in Malayalam)****Section-A****Unit 1-Early phase of Malayalam Language:**

- 1.1 Various theories: origin from proto Dravidian, Tamil, Sanskrit.
- 1.2 Relation between Tamil and Malayalam: Six nayas of A.R. Rajarajavarma.
- 1.3 Pattu school-definition, Ramacharitam, later pattu works-Niranam works and Krishnagatha.

**Unit 2-Linguistic features of :**

- 2.1 Manipravalam-definition. Language of early manipravala works-Champu, Sandesakavya, Chandrotsava, minor works. Later Manipravala works-medieval Champu and Attakkatha.
- 2.2 Folklore-Southern and Northern ballads, Mappila songs.
- 2.3 Early Malayalam prose-B h a s h a k a u t a l i y a m , Brahmandapuram, Attaprakaram, Kramadipika and Nambiantamil.

**Unit 3-Standardisation of Malayalam:**

- 3.1 Peculiarities of the language of Pana, Kilippattu and Tullal.
- 3.2 Contributions of indigenous and European missionaries to Malayalam.
- 3.3 Characteristics of contemporary Malayalam : Malayalam as administrative language. Language of scientific and technical literature-media language.

**Section-B****Literary History****Unit-4 Ancient and Medieval Literature:**

- 4.1 Pattu-Ramacharitam, Niranam works and Krishnagatha.
- 4.2 Manipravalam-early and medieval manipravala works including attakkatha and champu.
- 4.3 Folk literature.
- 4.4 Kilippattu, Tullal and Mahakavya.

**Unit 5- Modern Literature-Poerty:**

- 5.1 Venmani poets and contemporaries.
- 5.2 The advent of Romanticism-Poerty of Kavitraya i.e., Asan, Ulloor and Vallathol
- 5.3 Poetry after Kavitraya.
- 5.4 Modernism in Malayalam poetry.

**Unit 6- Modern Literature-Prose:**

- 6.1 Drama
- 6.2 Novel
- 6.3 Short story
- 6.4 Biography, travelogue, essay and criticism.

**Paper-II****(Answers must be written in Malayalam)**

This paper will require first hand reading of the texts prescribed and is designed to test the candidate's critical ability.

**Section-A****Unit 1**

- 1.1 Ramacharitam-Patalam 1.
- 1.2 Kannassaramayanam-Balakandam first 25 stanzas.
- 1.3 Unnunilisesandesam-Purvabhagam 25 slokas including Prastavana
- 1.4 Mahabharatham Kilippattu-Bhishmaparvam.

**Unit 2**

- 2.1 Kumaran Asan-Chintavisthayaya Sita.
- 2.2 Vailoppilli-Kutiyozhikkal.
- 2.3 G. Sankara Kurup-Perunthachan.
- 2.4 N.V. Krishna Variar-Tivandiyile Pattu.

**Unit 3**

- 3.1 ONV -Bhumikkoru Charamagitam
- 3.2 Ayyappa Panicker-Kurukshestram.
- 3.3 Akkittam-Pandatha Messanthi
- 3.4 Attur Ravivarma-Megharupan.

**Section-B****Unit 4**

- 4.1 O. Chanthu Menon-Indulekha
- 4.2 Thakazhy-Chemmin.
- 4.3 O V Vijayan-Khasakkinte Ithihasam.

**Unit 5**

- 5.1 MT Vasudevan Nair-Vanaprastham (Collection).
- 5.2 N S Madhavan-Higvitta (Collection).
- 5.3 C J. Thomas-1128-il Crime 27.

**Unit 6**

- 6.1 Kuttikrishna Marar-Bharataparyatanam
- 6.2 M. K Sanu-Nakshatragalute snehabhajanam
- 6.3 V.T. Bhattathirippad-Kannirum Kinavum.

**MANIPURI****Paper-I****(Answers must be written in Manipuri)****Section-A****Language :**

- a) General characteristics of Manipuri Language and history of its development; its importance and status among the Tibeto-Burman Languages of North-East India; recent development in the study of Manipuri language; evolution and study of old Manipuri script.
- b) Significant features of Manipuri language :

- i) Phonology-Phoneme-vowels, consonants juncture, tone, consonant cluster and its occurrence, syllable-its structure, pattern and types.
- ii) Morphology : Word-class, root and its types; affix and its types; grammatical categories-gender, number, person, case, tense and aspects, process of compounding (samam and sandhi).
- iii) Syntax : Word order : types of sentences, phrase and clause structures.

**Section-B**

- a) Literary History of Manipuri : Early period (upto 17th century)- Social and cultural background; Themes, diction and style of the works. Medieval period (18th and 19th century)- Social, religious and political background; Themes, diction and style of the works. Modern period-Growth of major literary forms; change of Themes, diction and style.
- b) Manipuri Folk Literature : Legend, Folktale, Folksong, Ballad, Proverb and Riddle.
- c) Aspects of Manipuri Culture : Pre-Hindu Manipuri Faith; Advent of Hinduism and the process of syncreticism. Performing arts-Lai Haraoba, Maha Ras; Indegenous games-Sagol Kangjei, Khong Kangjei, Kang.

**PAPER II****(Answers must be written in Manipuri)**

This paper will require first hand reading of the texts prescribed and will be designed to test the candidate's critical ability to assess them.

**Section-A****Old and Medieval Manipuri Literature**

- (a) Old Manipuri Literature
  1. O. Bhogeswar Singh (Ed.) : Numit Kappa
  2. M. Gourachandra Singh (Ed.) : Thawanthaba Hiran
  3. N. Khelchandra Singh (Ed.) : Naothingkhong Phambal Kaba
  4. M. Chandra Singh (Ed.) : Panthoibi Khonggul
- (b) Medieval Manipuri Literature :
  1. M. Chandra Singh (Ed.) : Samsok Ngamba
  2. R.K.Snahal Singh (Ed.) : Ramayana Adi Kanda
  3. N. Khelchandra Singh (Ed.) : Dhananjay Laibu Ningba
  4. O. Bhogeswar Singh (Ed.) : Chandrakirti Jila Changba

**Section-B****Modern Manipuri Literature :**

- (a) **Poetry and Epic :**
  - (i) **Poetry :**
    - (a) Manipuri Sheireng (Pub) Manipuri Sahitya Parishad, 1988 (ed.)
    - Kh. Chaoba Singh : Pi Thadoi, Lamgi Chekla Amada, Loktak
    - Dr. L. Kamal Singh : Nirjanata, Nirab Rajani
    - A. Minaketan Singh : Kamalda, Nonggulakkhoda
    - L. Samarendra Singh : Ingagi Nong, Mamang Leikai Thambal Sattle
    - E. Nilakanta Singh : Manipur, Lamangnaba
    - Shri Biren : Tangkhul Hui
    - Th. Ibopishak : Anouba Thunglaba Jiba
  - (b) Kanchi Sheireng. (Pub) Manipuri University 1998 (ed.)
  - Dr. L. Kamal Singh : Biswa-Prem
  - Shri Biren : Chaphadraba Laigi Yen
  - Th. Ibopishak : Norok Patal Prithivi
- (ii) **Epic :**
  1. A. Dorendrajit Singh : Kansa Bodha
  2. H. Anganghal Singh : Khamba-

Thoibi Sheireng (San-Senba, Lei Langba, Shamu Khonggi Bichar)

**(III) Drama :**

1. S. Lalit Singh : Areppa Marup
2. G.C. Tongbra : Matric Pass
3. A. Samarendra : Judge Sahebki Imung

**(b) Novel, Short-story and Prose :****(I) Novel :**

1. Dr. L. Kamal Singh : Madhabi
2. H. Anganghal Singh : Jahera
3. H. Guno Singh : Laman
4. Pacha Meetei : Imphal Amasung, Magi Ishing, Nungsitki Phibam

**(II) Short-story :**

- (a) Kanchi Warimacha (Pub) Manipuri University 1997 (ed.)
- R.K. Shitaljit Singh : Kamala Kamala
- M.K. Binodini : Eigi Thahoudraba Heitup Lalu
- Kh. Prakash : Wanom Shareng
- (b) Parishadki Khangatlaba Warimacha (Pub) Manipuri Sahitya Parishad 1994 (ed.) S. Nilbir Shastri : Loukhatpa
- R.K. Elangba : Karinunggi
- (c) Anouba Manipuri Warimacha (Pub) The Cultural Forum Manipur 1992 (ed.)
- N. Kunjamohon Singh : Ijat Tanba
- E. Dinamani : Nongthak Khongnang

**(III) Prose :**

- (a) Warengi Saklon Due Part (Pub) The Cultural Forum Manipur 1992 (ed.)
- Kh. Chaoba Singh : Khamba-Thoibigi Wari Amasung Mahakavya
- (b) Kanchi Wareng (Pub) Manipuri University 1998 (ed.)
- B. Manisana Shastri : Phajaba
- Ch. Manihar Singh : Lai-Haraoba
- (c) Apunba Wareng. (Pub) Manipuri University, 1986 (ed.)
- Ch. Pishak Singh : Samaj Amasung, Sanskriti
- M.K. Binodini : Thoibidu Warouhouida
- Eric Newton : Kalagi Mahousa (translated by I.R. Babu)
- (d) Manipuri Wareng (Pub) The Cultural Forum Manipur 1999 (ed.)
- S. Krishnamohan Singh : Lan

**MARATHI****Paper-I****(Answers must be written in Marathi)****Section-A****Language and Folk-lore :**

- (a) Nature and Functions of Language (with reference to Marathi) Language as a signifying system : Langue and Parole; Basic functions; Poetic language; Standard Language and dialect; Language variations according to social parameters. Linguistic features of Marathi in thirteenth century and seventeenth century.
- (b) **Dialects of Marathi** Ahirani; Varhadi; Dangi
- (c) **Marathi Grammar** Parts of Speech; Case-system; Prayogvichar (Voice)
- (d) **Nature and kinds of Folk-lore** (with special reference to Marathi) Lok-Geet, Lok Katha, Lok Natya

**Section-B****History of Literature and Literary Criticism:**

- (a) History of Marathi Literature
  1. From beginning to 1818 AD, with special reference to the following :

The Mahanubhava writers, the Varkari poets, the Pandit poets, the Shahirs, Bakhar literature.

- From 1850 to 1990, with special reference to developments in the following major forms : Poetry, Fiction (Novel and Short Story), Drama; and major literary currents and movements, Romantic, Realist, Modernist, Dalit Gramin, Feminist.

#### (b) Literary Criticism

- Nature and function of Literature;
- Evaluation of Literature;
- Nature, Objectives and Methods of Criticism;
- Literature, Culture and Society.

#### Paper-II

#### (Answers must be written in Marathi) Textual study of prescribed literary works

The paper will require first-hand reading of the texts prescribed and will be designed to test the candidate's critical ability.

#### Section-A

##### Prose

- 'Smritishala'
- Mahatma Jotiba Phule "Shetkaryacha Asud; 'Sarvajanic Satyadharm'
- S.V. Ketkar 'Brahmankanya;
- P.K. Atre 'Sashtang Namaskar'
- Sharchchandra Muktibodh 'Jana Hey Volatu Jethe'
- Uddhav Shelke 'Shilan'
- Baburao Bagul 'Jevha Mi Jaat Chorli Hoti'
- Gouri Deshpande 'Ekek Paan Galavaya'
- P.I. Sonkamble 'Athavaninche Pakshi'

#### Section-B

##### Poetry

- Namadevanchi Abhangawani' Ed: Inamdar, Relekar, Mirajkar Modern Book Depot, Pune
- 'Painjan' Ed : M.N. Adwant Sahitya Prasar Kendra, Nagpur
- 'Damayanti-Swayamvar' By Raghunath Pandit
- 'Balakvinchi Kavita' By Balkavi
- 'Vishakha' By Kusumagraj
- 'Mridgandh' By Vinda Karandikar
- 'Jahirnama' By Narayan Surve
- 'Sandhyakalchya Kavita' By Grace
- 'Ya Sattet Jeev Ramat Nahi' By Namdev Dhasal

#### NEPALI

#### Paper-I

#### (Answers must be written in Nepali) Section-A

- History of the origin and development of Nepali as one of the new Indo-Aryan Languages
- Fundamentals of Nepali Grammar and phonology:
  - Nominal forms and categories :- Gender, Number, Case, Adjectives, Pronouns, Avyayas
  - Verbal forms and categories- Tense, Aspects, Voice, Roots and Fixes
  - Nepali Swara and Vyanjana;
- Major Dialects of Nepali
- Standardisation and Modernisation of Nepali with special reference to language movements (viz. Halanta Bahiskar, Jharrovaad etc.)
- Teaching of Nepali language in India-Its history and development with special reference to its socio-cultural aspects.

#### Section-B

- History of Nepali literature with special reference to its development in India.
- Fundamental concepts and theories of literature : Kavya/Sahitya, Kavya Prayojan, Literary genres, Shabda Shakti, Rasa, Alankara, Tragedy, Comedy, Aesthetics, Stylistics.
- Major literary trends and movements- Swachchhandatavada, Yatharthavada, Astitvavada, Ayamik Movement, Contemporary Nepali writings, Postmodernism.
- Nepali folklores (the following folk-form only)- Sawai, Jhyaurey, Selo, Sangini, Lahari.

#### Paper-II

#### (Answers must be written in Nepali)

This paper will require first hand reading of the texts prescribed below and questions will be designed to test the candidate's critical acumen.

#### Section-A

- Santa Jnandil Das-Udaya Lahari
- Lekhnath Poudyal-Tarun Tapasi (Vishrams III, V, VI, XII, XV, XVIII only)
- Agam Singh Giri-Jaleko Pratibimba : Royeko Pratidhwani (The following poems only-rasawako Chichy-ahat-sanga Byunjheko Ek Raat, Chhorolai, Jaleko Pratibimba : Royeko Prati-dhwani, Hamro Akashmani Pani Hunchha Ujyalo, Tihar).
- Haribhakta Katuwal-Yo Zindagi Khai Ke Zindagi : (The following poems only - Jeevan : Ek Dristi, Yo Zindagi Khai Ke Zindagi, Akashka tara Ke Tara, Hamilai Nirho Nasamjha, Khai Manyata Yahan Atmahutiko Balidan Ko).
- Balkrishna Sama-Prahlad
- Manbahadur Mukhia-Andhyaroma Banchnharu (The following One-Act plays only-'Andhyaroma Banchnharu', 'Suskeru').

#### Section-B

- Indra Sundas-Sahara
- Liibahadur Chhetri-Brahmaputrako Chheuchhau
- Rupnarayan Sinha-Katha Navaratna (The following stories only-Biteka Kura, Jimmewari Kasko, Dhanamatiko Cinema-Swapna, Vidhwasta Jeevan).
- Indrabahadur Rai-Vipana Katipaya (The following stories only-Raatbhari Huri Chalyo, Jayamaya Aphumatra Lekha-pani Aipugi, Bhagi, Ghosh Babu, Chhutyaiyo).
- Sanu Lama-Katha Sampad (The following stories only-Swasni Manchhey, Khani Tarma Ekdin, Phurbale Gaun Chhadyo, Asinapo Manchhey).
- Laxmi Prasad Devkota-Laxmi Nibandha Sangraha (The following essays only-Sri Ganeshaya Namah, Nepali Sahityako Itihasma Sarvashrestha Purus, Kalpana, Kala Ra Jeevan, Gadha Buddhiman Ki Guru).
- Ramkrishna Sharma-Das Gorkha (The following essays only-Kavi, Samaj Ra Sahitya, Sahityama Sapekshata, Sahityik Ruchiko Praudhata, Nepali Sahityako Pragati).

#### ORIYA

#### Paper-I

#### (Answers must be written in Oriya)

#### Section-A

#### History of Oriya Language

- Origin and development of Oriya Language-Influence of Austric, Dravidian, Perso-Arabic and English on Oriya Language.
- Phonetics and Phonemics : Vowels, Consonants Principles of changes in

Oriya sounds.

- Morphology : Morphemes (free, bound compound and complex), derivational and inflectional affixes, case inflection, conjugation of verb.
- Syntax : Kinds of sentences and their transformation, structure of sentences.
- Semantics-Different types of change in meaning Euphemism.
- Common errors in spellings, grammatical uses and construction of sentences.
- Regional variations in Oriya Language (Western, Southern and Northern Oriya) and Dialects (Bhatiri and Desia)

#### Section-B

#### History of Oriya Literature

- Historical backgrounds (social, cultural and political) of Oriya Literature of different periods.
- Ancient epics, ornate kavyas and padavalis.
- Typical structural forms of Oriya Literature (Koili, Chautisa, Poi, Chaupadi, Champu).
- Modern trends in poetry, drama short story, novel, essay and literary criticism.

#### Paper-II

#### (Answers must be written in Oriya)

Critical Study of texts - The paper will require first hand reading of the text and test the critical ability of the candidate.

#### Section-A

#### Poetry :

#### (Ancient)

- Sarala Das-Shanti Parva from Mahabharata.
- Jaganath Das-Bhagabate, XI Skandha-Jadu Avadhuta Sambada.

#### (Medieval)

- Dinākrushna Das-Rasakallola-(Chhāndas-16 & 34)
- Upendra Bhanja-Lāvanyabati (Chhandas-1 & 2)

#### (Modern)

- Radhanath Ray-Chandrabhaga
- Mayadhar Manasinha-Jeevan Chita
- Satchidananda Routray-Kabita-1962
- Ramakanta Ratha-Saptama Ritu.

#### Section-B

#### Drama :

- Manoranjan Das-Katha-Ghoda
- Bijay Mishra-Tata Niranjana

#### Novel :

- Fakir Mohan Senāpati-Chhamāna Athaguntha
- Gopināth Mohanty-Danapani

#### Short Story :

- Surendra Mohanty-Maralara Mrityu
- Manoj Das-Laxmira Abhisara

#### Essay :

- Chittaranjan Das-Taranga O Tadit (First five essays).
- Chandra Sekhar Rath-Mun Satyadhārma Kahuchhi (First five essays)

#### PUNJABI

#### Paper-I

#### (Answers must be written in Punjabi in Gurumukhi Script)

#### Section-A

- Origin of Punjabi language : different stages of development and recent development in Punjabi language : characteristics of Punjabi phonology and the study of its tones: classification of vowels and consonants.
- Punjabi morphology : the number-gender system (animate and inanimate), prefixes, affixes and different categories of Post positions: Punjabi word formation: **Tatsam. Tad Bhav**, forms: Sentence structure, the notion of subject and object in Punjabi: Noun and verb phrases.
- Language and dialect; the notions of dialect and idiolect; major dialects of Punjabi; Pothohari, Majhi, Doabi, Malwai, Puadhi; the validity of speech variation on the basis of social stratification, the dis-

tinctive features of various dialects with special reference to tones. Language and script; origin and development of Gurumukhi; suitability of Gurumukhi for Punjabi.

(d) Classical background; Nath Jogi Sahit Medieval literature : Gurmat, Sufti, Kissa and Var Janamsakhis.

#### Section-B

(a) Modern Mystic, romantic, progressive and neomystic (Vir Singh, Puran Singh, Mohan Singh, Amrita Pritam, Bawa Balwant, Pritam Singh Safeer, J.S. Neki).

Experimentalist (Jasbir Singh Ahluwalia, Ravinder Ravi, Ajaib Kamal)

Aesthetes (Harbhajan Singh, Tara Singh)

Neo-progressive (Pash. Jagtar, Patar)

#### Origin and Development of Genres :

(b) Folk Folk songs, Folk tales. Riddles,

literature Proverbs.

Epic (Vir Singh, Avtar Singh, Azad Mohan Singh)

Lyric (Gurus, Sufis and Modern Lyricists-Mohan Singh Amrita Pritam, Shiv Kumar, Harbhajan Singh)

(c) Drama (I.C. Nanda, Harcharan Singh, Balwant Gargi, S.S.Sekhon, Charan Das Sidhu)

Novel (Vir Singh, Nanak Singh, Jaswant Singh Kanwal, K.S. Duggal, Sukhbir, Gurdial Singh, Dalip Kaur Tiwana, Swaran Chandan)

Short Story (Sujan Singh, K.S. Virk. Prem Parkash, Waryam Sandhu).

(d) Socio- Sanskrit, Persian and cultural Western.

Literary influences

Essay (Puran Singh, Teja Singh, Gurbaksh Singh)

Literary Criticism (S.S. Sekhon, Attar Singh, Kishan Singh, Harbhajan Singh, Najam Hussain Sayyad).

#### Paper-II

(Answers must be written in Punjabi in Gurumukhi Script)

This paper will require first-hand reading of the texts prescribed and will be designed to test the candidate's critical ability.

#### Section-A

a) Sheikh Farid The complete Bani as included in the Adi Granth.

b) Guru Nanak Japu Ji Baramah, Asadi Var

c) Bulleh Shah Kafian

d) Waris Shah Heer

#### Section-B

a) Shah Jangnama (Jang Mohammad Singhan te Firangian)

Dhani Ram Chandan Vari

Chatrik (Poet) Sufi Khana

Nawan Jahan

b) Nanak Singh Chitta Lahu (Novelist) Pavittar Papi

Ek Mian Do Talwaran

c) Gurbaksh Zindagi di Ras Singh (Essayist) Nawan Shivala

Merian Abhul Yadaan.

Balraj Sahnii Mera Roosi

(Travelogue) Safarnama

d) Balwant Gargi Loha Kutt (Dramatist) Dhuni-di-Agg

Sant Singh Sultan Razia

Sekhoni (Critic) Sahityarth

Parsidh Punjabi Kavi

Punjabi Kav

Shiromani

**SANSKRIT**

**Paper-I**

There will be three questions as indicated in the question paper which must be answered in Sanskrit. The remaining questions must be answered either in Sanskrit or in the medium of examination opted by the candidate.

**Section-A**

1. Significant features of the grammar, with particular stress on Sanjna, Sandhi, Karaka, Samasa, Kartari and Karmani vacyas (voice usages) (to be answered in Sanskrit).
2. (a) Main characteristics of Vedic Sanskrit language.  
(b) Prominent features of classical Sanskrit language.  
(c) Contribution of Sanskrit to linguistic studies.
3. General Knowledge of:-  
(a) Literary history of Sanskrit,  
(b) Principal trends of literary criticism  
(c) Ramayana,  
(d) Mahabharata  
(e) The origin and development of literary genres of:

- Mahakavya
- Rupaka (drama)
- Katha
- Akhyayika
- Campu
- Khandakavya
- Muktaka Kavya.

**Section-B**

4. Essentials of Indian Culture with stress on
  - a) Purusarthas-
  - b) Samskaras-
  - c) Varnasramavyavastha
  - d) Arts and fine arts
  - e) Technical sciences
5. Trends of Indian Philosophy
 

a) Mimamsa	b) Vedanta
c) Nyaya	d) Vaisesika
e) Sankhya	f) Yoga
g) Bauddha	h) Jaina
6. Short Essay in Sanskrit
7. Unseen passage with the questions, to be answered in Sanskrit.

**Paper-II**

Question from Group 4 is to be answered in Sanskrit only. Question from Groups 1, 2 and 3 are to be answered either in Sanskrit or in the medium opted by the candidate.

**Section-A**

General study of the following groups:-

**Group 1**

- a) Raghuvamsam-Kalidasa
  - b) Kumarasambhavam-Kalidasa
  - c) Kiratarjuniyam-Bharavi
  - d) Sisupalavadham-Magha
  - e) Naisadhiyacaritam-Sriharsa
  - f) Kadambari-Banabhatta
  - g) Dasakumaracaritam -Dandin
  - h) Sivarajyodayam-S.B. Varnekar
- Group 2**
- a) Isavasyopanisad
  - b) Bhagavadgita
  - c) Sundarakanda of Valmiki's Ramayana
  - d) Arthasastra of Kautilya
- Group 3**
- a) Svapnavasavadattam- Bhasa
  - b) Abhijnanasakuntalam- Kalidasa
  - c) Mrcchakatikam-Sudraka
  - d) Mudraraksasam-Visakhadatta
  - e) Uttaramacaritam- Bhavabhuti
  - f) Ratnavali-Sriharshavardhana
  - g) Venisamharam- Bhattanarayana
- Group 4**

Short notes in Sanskrit on the following:-

- a) Meghadutam-Kalidasa
- b) Nitisatakam-Bharthari
- c) Panchtantra-
- d) Rajatarangini-Kalhana
- e) Harsacaritam-Banabhatta
- f) Amarukasatakam-Amaruka
- g) Gitagovindam-Jayadeva

**Section-B**

**Questions from Groups 1 & 2 are to be answered in Sanskrit only. (Questions**

**from Groups 3 & 4 are to be answered in Sanskrit or in the medium opted by the candidate).**

This Section will require first hand reading of the following selected texts :-

**Group 1**

- (a) Raghuvamsam-Canto I, Verses 1 to 10
  - (b) Kumarasambhavam-Canto I, Verses 1 to 10
  - (c) Kiratarjuniyam-Canto I, Verses 1 to 10
- Group 2**
- (a) Isavasyopanisad-verses-1, 2, 4, 6, 7, 15 and 18
  - (b) Bhagavatgita II chapter verses 13 to 25
  - (c) Sundarakandam of Valmiki Canto 15, Verses 15 to 30 (Geeta Press Edition)

**Group 3**

- (a) Meghadutam-verses 1 to 10
- (b) Nitisatakam-Verses 1 to 10 (Edited by D.D. Kosambi Bharatiya Vidya Bhavan Publication)
- (c) Kadambari-Sukanaso-padesa (only)

**Group 4**

- (a) Svapnavasavadattam Act VI
- (b) Abhijnanasakuntalam Act IV verses 15 to 30 (M.R. Kale Edition)
- (c) Uttararamacharitam Act 1 verses 31 to 47 (M.R. Kale Edition)

**SANTHALI**

**Paper-I**

**(Answers must be written in Santhali)**

**Section-A**

**Part-I History of Santhali Language**

- I. Main Austric Language family, population and distribution.
- II. Grammatical structure of Santhali Language.
- III. Important character of Santhali Language : Phonology, Morphology, Syntax, Semantics, Translation, Lexicography.
- IV. Impact of other languages on Santhali.
- V. Standardization of Santhali Language.

**Part-II History of Santhali Literature.**

- I. Literary trends of the following four periods of History of Santhali Literature.
  - (a) Ancient literature before 1854.
  - (b) Missionary period : Literature between 1855 to 1889 AD.
  - (c) Medieval period : Literature between 1890 to 1946 AD.
  - (d) Modern period : Literature from 1947 AD to till date.
- II. Writing tradition in History of Santhali Literature.

**Section-B**

Literary forms - Main characteristics, history and development of following literary forms.

**Part-I : Folk Literature in Santhali-folk song, folk tale, phrase, idioms, puzzles and Kudum.**

**Part-II : Modern literature in Santhali**

- (a) Development of poetry and prominent poets.
- (b) Development of prose and prominent writers.
  - (i) Novels and prominent Novelists.
  - (ii) Stories and prominent story writers.
  - (iii) Drama and prominent Dramatist.
  - (iv) Criticism and prominent critics.
  - (v) Essay, sketches, memoirs, travelogues and prominent writers.

**Santhali writers :**

Shyam Sunder Hembram, Pandit Raghunath Murmu, Barha Beshra, Sadhu Ramchand Murmu, Naraya Soren 'Toresutam', Sarada Prasad Kisku, Raghunath Tudu, Kalipada Soren, Sakla Soren, Digambar Hansda, Aditya Mitra 'Santhali', Babulal Murmu 'Adivasi', Jadumani Beshra, Arjun Hembram, Krishna Chandra Tudu, Rupchand Hansda, Kalendra Nath Mandi, Mahadev Hansda, Gour Chandra Murmu, Thakur Prasad Murmu, Hara Prasad Murmu, Uday Nath Majhi, Parimal Hembram, Dharendra Nath Baske, Shyam Charan Hembram, Damayanti Beshra, T.K. Rapaj, Boyha Biswanath Tudu.

**Part-III : Cultural Heritage of Santhali tradition, customs, festival and rituals (birth, marriage and death).**

**Paper-II**

**(Answers must be written in Santhali)**

**Section-A**

This paper will require in-depth reading of the following texts and the questions will be designed to test the candidates' critical ability.

**Ancient Literature :**

**Prose**

- (a) Kherwal Bonso Dhorom Puthi-Majhi Ramdas Tudu "Rasika".
- (b) Mare Hapramko Reyak Katha-L.O. Scrafsrud.
- (c) Jomsim Binti Lita-Mangal Chandra Turkulumang Soren.
- (d) Marang Buru Binti-Kanailal Tudu.

**Poetry**

- (a) Karam Sereng-Nunku Soren.
- (b) Devi Dasain Sereng-Manindra Hansda.
- (c) Horh Sereng-W.G. Archer.
- (d) Baha Sereng-Balaram Tudu
- (e) Dong Sereng-Padmashri Bhagwat Murmu 'Thakur'
- (f) Hor Sereng-Raghunath Murmu.
- (g) Soros Sereng-Babulal Murmu "Adivasi"
- (h) More Sin More Nida-Rup Chand Hansda
- (i) Judasi Madwa Latar-Tez Narayan Murmu.

**Section-B**

**Modern Literature**

**Part-I : Poetry**

- (a) Onorhen Baha Dhalwak-Paul Jujhar Soren.
- (b) Asar Binti-Narayan Soren "Tore Sutam"
- (c) Chand Mala-Gora Chand Tudu.
- (d) Onto Baha Mala-Aditya Mitra "Santhali"
- (e) Tiryo Tetang-Hari Har Hansda
- (f) Sisirjon Rar-Thakur Prasad Murmu.

**Part-II : Novels**

- (a) Harmawak Ato-R. Karstiars (Translator-R.R. Kisku Rapaz).
- (b) Manu Mati-Chandra Mohan Hansda
- (c) Ato Orak-Doman Hansda
- (d) Ojoy Gada Dhiphre-Nathaniel Murmu

**Part-III : Stories**

- (a) Jiyon Gada-Rup Chand Hansda and Jadumani Beshra.
- (b) Mayajal-Doman Sahu, 'Samir' and Padmashri Bhagwat Murmu 'Thakur'

**Part-IV : Drama**

- (a) Kherwar Bir-Pandit Raghunath Murmu
  - (b) Juri Khatir-Dr. K.C. Tudu
  - (c) Birsa Bir-Ravi Lal Tudu
- Part-V : Biography**
- Santal Ko Ren Mayam Gohako-Dr. Biswanath Hansda.

**SINDHI**

**Paper-I**

**(Answers must be written in Sindhi) (Arabic or Devanagari script)**

**Section-A**

1. (a) Origin and evolution of Sindhi language-views of different scholars.  
(b) Significant linguistic features of Sindhi language, including those pertaining to its phonology, morphology and syntax.  
(c) Major dialects of the Sindhi language.  
(d) Sindhi vocabulary-stages of its growth, including those in the pre-partition and post-partition periods.  
(e) Historical study of various Writing Systems (Scripts) of Sindhi.  
(f) Changes in the structure of Sindhi language in India, after partition, due to influence of other languages and social conditions.

**Section-B**

2. Sindhi literature through the ages in context of socio-cultural conditions in the respective periods :
  - a. Early medieval literature upto 1350 A.D. including folk literature.
  - b. Late medieval period from 1350 A.D.

- c. Renaissance period from 1850 A.D. to 1947 A.D.
- d. Modern period from 1947 and onwards.

(Literary genres in Modern Sindhi literature and experiments in poetry, drama, novel, short story, essay, literary criticism, biography, autobiography, memoirs, and travelogues.)

**Paper-II**

**(Answers must be written in Sindhi) (Arabic or Devanagari script).**

This paper will require the first-hand reading of the texts prescribed and will be designed to test the candidates' critical ability.

**Section-A**

References to context and critical appreciation of the texts included in this section.

**(1) Poetry**

- a. "Shah Jo Choond Shair" : ed. H.I. Sadarangani, Published by Sahitya Akademi (First 100 pages)
- b. "Sachal Jo Choond Kalam" : ed. Kalyan B. Advani Published by Sahitya Akademi (Kafis only)
- c. "Sami-a-ja Choond Sloka" : ed. B.H. Nagrani Published by Sahitya Akademi (First 100 pages)
- d. "Shair-e-Bewas" : by Kishinchand Bewas ("Saamoondi Sipoon" portion only)
- e. "Roshan Chhanvro" : Narayan Shyam
- f. "Virhange Khanpoije Sindhi Shair jee Choond" : ed. H.I. Sadarangani Published by Sahitya Akademi

**(2) Drama**

- g. "Behtareen Sindhi Natak" (One-act Plays) : Edited by M. Kamal Published by Gujarat Sindhi Academy.
- h. "Kako Kaloomal" (Full-length Play) : by Madan Jumani

**Section-B**

References to context and critical appreciation of the texts included in this section.

- a. 'Pakheera Valar Khan Vichhrya' (Novel) : by Gobind Malhi
- b. 'Sat Deenhan' (Novel) : by Krishan Khatwani
- c. 'Choond Sindhi Kahanyoon' (Short Stories) Vol. III. : Edited by Prem Prakash, Published by Sahitya Akademi.
- d. 'Bandhan' (Short Stories) : Sundari Uttamchandani
- e. 'Behtareen Sindhi Mazmoon' (Essays) : Edited by Hiro Thakur, published by Gujarat Sindhi Akademi.
- f. 'Sindhi Tanqed' (Criticism) : Edited by Harish Vaswani : Published by Sahitya Akademi.
- g. 'Mumhinjee Hayati-a ja Sona Ropa varqa' (Autobiography) : by Popati Hiranandani
- h. "Dr. Choithram Gidwani" (Biography) : by Vishnu Sharma

**TAMIL**

**Paper-I**

**(Answers must be written in Tamil)**

**Section-A**

**Part: 1 History of Tamil Language**

Major Indian Language Families-The place of Tamil among Indian languages in general and Dravidian in particular-Enumeration and Distribution of Dravidian languages.

The language of Sangam literature-The language of medieval Tamil: Pallava period only-Historical study of Nouns, Verbs, adjectives, adverbs Tense markers and case markers in Tamil.

Borrowing of words from other languages into Tamil-Regional and social dialects-difference between literary and spoken Tamil.

**Part: 2 History of Tamil Literature**

Tolkappiyam-Sangam Literature-The division of Akam and puram-The secular characteristics of Sangam Literature-The

development of Ethical literature-Silappadikaram and Manimekalai.

**Part: 3 Devotional literature** (Alwars and Nayanmars) The bridal mysticism in Alwar hymns-Minor literary forms (Tutu, Ula, Parani, Kuravanji)

Social factors for the development of Modern Tamil literature: Novel, Short story and New Poetry-The impact of various political ideologies on modern writings.

#### Section-B

##### Part:1 Recent trends in Tamil Studies

Approaches to criticism: Social, psychological, historical and moralistic-the use of criticism-the various techniques in literature: Ullurai, Iraicchi, Thonmam (Myth) Otturuvagam (allegory), Angadam (Satire), Meyppadu, Padimam(image), Kuriyeedu (Symbol), Irunmai (ambiguity)-The concept of comparative literature-the principle of comparative literature.

**Part: 2 Folk literature in Tamil:** Ballads, Songs, proverbs and riddles-Sociological study of Tamil folklore. Uses of translation-Translation of Tamil works into other languages-Development of journalism in Tamil.

##### Part: 3 Cultural Heritage of the Tamils

Concept of Love and War-Concept of Aram-the ethical codes adopted by the ancient Tamils in their warfare-customs, beliefs, rituals, modes of worship in the five Thinais. The cultural changes as revealed in post sangam literature-cultural fusion in the medieval period (Jainism & Buddhism). The development of arts and architecture through the ages (Pallavas, later cholas, and Nayaks). The impact of various political, social, religious and cultural movements on Tamil Society. The role of mass media in the cultural change of contemporary Tamil society.

#### Paper-II

##### (Answers must be written in Tamil)

The paper will require first hand reading of the Text prescribed and will be designed to test the critical ability of the candidate.

#### Section-A

##### Part: 1 Ancient Literature

- (1) Kuruntokai (1-25 poems)
- (2) Purananurui (182-200 poems)
- (3) Tirukkural Porutpal : Arasiyalum Amaichiyalum (from Iraitamchi to Avaianjamai)

##### Part : 2 Epic Literature

- (1) Silappadikaram: Madhurai Kandam only.
- (2) Kambaramayanam: Kumbakarunan Vadhai Padalam

##### Part 3: Devotional Literature

- (1) Tiruvasagam: Neethal Vinnappam
- (2) Tiruppavai: (Full Text)

#### Section-B

##### Modern Literature

##### Part:1 Poetry

- (1) Bharathiar: Kannan Pattu
- (2) Bharathidasan: Kudumba Vilakku
- (3) Naa. Kamarasan: Karuppu Malarkal

##### Prose

- (1) Mu. Varadharajanar. Aramum Arasiyalum
- (2) C N Annadurai: Ye! Thazhnhtha Tamilagame.

##### Part : 2 Novel, Short story and Drama

- (1) Akilon: Chittirappavai
- (2) Jayakanthan: Gurupeedam
- (3) Cho: Yarukkum Vetkamillai

##### Part: 3 Folk Literature

- (1) Muthuppattan Kathai Edited by Na. Vanamamalai, (Publication: Madurai Kamaraj University)
- (2) Malaiyaruvi, Edited by Ki. Va Jagannathan (Publication: Saraswathi, Mahal, Thanjavur)

## TELUGU

#### Paper-I

##### (Answers must be written in Telugu)

#### Section-A

##### Language

1. Place of Telugu among Dravidian languages and its antiquity-Etymological history of Telugu, Tenugu and Andhra.
2. Major linguistic changes in phonological, morphological, grammatical and syntactical levels, from Proto-Dravidian to old Telugu and from old Telugu to Modern Telugu.
3. Evolution of spoken Telugu when compared to classical Telugu-Formal and functional view of Telugu language.
4. Influence of other languages and its impact on Telugu.
5. Modernization of Telugu language. (a) Linguistic and literary movements and their role in modernization of Telugu. (b) Role of media in modernization of Telugu (Newspapers, Radio, TV etc.) (c) Problems of terminology and mechanisms in coining new terms in Telugu in various discourses including scientific and technical.
6. Dialects of Telugu-Regional and social variations and problems of standardization.
7. Syntax-Major divisions of Telugu sentences-simple, complex and compound sentences-Noun and verb predications-Processes of nominization and relativization-Direct and indirect reporting-conversion processes.
8. Translation-Problems of translation, cultural, social and idiomatic-Methods of translation-Approaches to translation-Literary and other kinds of translation-various uses of translation.

#### Section-B

##### Literature

1. Literature in Pre-Nannaya Period-Marga and Desi poetry.
2. Nannaya Period-Historical and literary background of Andhra Mahabharata.
3. Saiva poets and their contribution-Dwipada, Sataka, Ragada, Udaharana.
4. Tikkana and his place in Telugu literature.
5. Errana and his literary works-Nachana Somana and his new approach to poetry.
6. Srinatha and Potana-Their works and contribution.
7. Bhakti poets in Telugu literature-Tallapaka Annamayya, Ramadasu, Tyagayya.
8. Evolution of prabandhas-Kavya and prabandha.
9. Southern school of Telugu literature-Raghunatha Nayaka, Chemakura Vankatakavi and women poets-Literary forms like yakshagana, prose and padakavita.
10. Modern Telugu Literature and literary forms-Novel, Short Story, Drama, Playlet and poetic forms.
11. Literary Movements : Reformation, Nationalism, Neo-classicism, Romanticism and Progressive, Revolutionary movements.
12. Digambarakavulu, Feminist and Dalit Literature.
13. Main divisions of folk literature-Performing folk arts.

#### Paper-II

##### (Answers must be written in Telugu)

This paper will require first hand reading of the prescribed texts and will be designed to test the candidate's critical ability, which will be in relation to the following approaches.

- i) Aesthetic approach-Rasa, Dhvani, Vakroti and Auchtitya-Formal and Structural-Imagery and Symbolism.
- ii) Sociological, Historical, Ideological, Psychological approaches.

#### Section-A

1. Nannaya-Dushyanta Charitra (Adiparva 4th Canto verses 5-109)
2. Tikkana-Sri Krishna Rayabaramu (Udyoga parva -3rd Canto verses 1-144)
3. Srinatha-Guna Nidhi Katha (Kasikhandam, 4th Canto, verses 76-133)
4. Pingali Surana-Sugatri Salinulakatha (Kalapurnodayamu 4 Canto verses, 60-142)
5. Molla-Ramayanamu (Balakanda including avatarika)
6. Kasula Purushothama Kavi-Andhra Nayaka Satakamu
7. Gurajada Appa Rao-Animutyalu (Short stories)
8. Viswanatha Satyanarayana-Andhra prasasti
9. Devulapalli Krishna Sastry-Krishnapaksham (excluding Urvasi and Pravasam)
10. Sri Sri-Maha prastanam.
11. Jashuva-Gabbilam (Part I)
12. C. Narayana Reddy-Karpuravasanta rayalu.
13. Kanuparti Varalakshamma-Sarada lekhalu (Part I)
14. Atreya-N.G.O.
15. Racha konda Visswanatha Sastry-Alpajaeivi.

## URDU

#### Paper-I

##### (Answers must be written in Urdu)

#### Section-A

- Development of Urdu Language
- a) Development of Indo-Aryan (i) Old Indo-Aryan (ii) Middle Indo Aryan (iii) New Indo Aryan
  - b) Western Hindi and its dialects Brij Bhasha Khadi Boli, Haryanavi Kannauji, Bundeli-Theories about the origin of Urdu Language
  - c) Dakhani Urdu-Origin and development, its significant linguistic features.
  - d) Social and Cultural roots of Urdu language-and its distinctive features. Script, Phonology, Morphology, Vocabulary.

#### Section-B

- a) Genres and their development : (i) Poetry : Ghazal, Masnavi, Qasida, Marsia, Rubai, Jadid Nazm, (ii) Prose : Novel, Short Story, Dastan, Drama, Inshaiya, Khutoot, Biography.
- b) Significant features of : (i) Deccani, Delhi and Lucknow schools (ii) Sir Syed movement, Romantic movement, Progressive movement, Modernism.
- c) Literary Criticism and its development with reference to Hali, Shibli, Kaleemuddin Ahmad, Ehtisham Hussain, Ale-Ahmad Suroor.
- d) Essay writing (covering literary and imaginative topics)

#### Paper-II

##### (Answers must be written in Urdu)

This paper will require first hand reading of the texts prescribed and will be designed to test the candidate's critical ability.

#### Section-A

1. Mir Amman Bagho-Babar
2. Ghalib Intikhab-e-Khutoot-e Ghalib
3. Mohd. Husain Nairang-e-Khayal Azad
4. Prem Chand Godan
5. Rajendra Singh Apne Dukh Mujhe Bedi Dedo
6. Abul Kalam Azad Ghubar-e-Khatir

#### Section-B

1. Mir Intikhab-e-Kalam-e-Mir (Ed. Abdul Haq.)
2. Mir Hasan Sahrul Bayan
3. Ghalib Diwan-e-Ghalib
4. Iqbal Bal-e-Jibrail
5. Firaq Gul-e-Naghma

6. Faiz Dast-e-Saba
7. Akhtruliman Bint-e-Lamhat

## MANAGEMENT

The candidate should make a study of the concept and development of management as science and art drawing upon the contributions of leading thinkers of management and apply the concepts to the real life of government and business decision making keeping in view the changes in the strategic and operative environment.

#### PAPER – I

##### 1. Managerial Function and Process:

Concept and Foundations of Management, Evolution of Management Thoughts; Managerial Functions – Planning, Organizing, Controlling; Decision making; Role of Manager, Managerial skills; Entrepreneurship; Management of innovation; Managing in a global environment, Flexible Systems Management; Social responsibility and managerial ethics; Process and customer orientation; Managerial processes on direct and indirect value chain.

##### 2. Organisational Behaviour and Design:

Conceptual model of organization behaviour; The individual processes – personality, values and attitude, perception, motivation, learning and reinforcement, work stress and stress management; The dynamics of organization behaviour – power and politics, conflict and negotiation, leadership process and styles, communication; The Organizational Processes - decision making, job design; Classical, Neoclassical and Contingency approaches to organizational design; Organizational theory and design - organizational culture, managing cultural diversity, learning organization; organizational change and development; Knowledge Based Enterprise – systems and processes; Networked and virtual organizations.

##### 3. Human Resource Management:

HR challenges; HRM functions; The future challenges of HRM; Strategic Management of human resources; Human resource planning; Job analysis; Job evaluation; Recruitment and selection; Training and development; Promotion and transfer; Performance management and benefits; Employee morale and productivity; Management of organizational climate and Industrial relations; Human resources accounting and audit; Human resource information system; International human resource management.

##### 4. Accounting for Managers:

Financial accounting – concept, importance and scope, generally accepted accounting principles, preparation of financial statements with special reference to analysis of a balance sheet and measurement of business income, inventory valuation and depreciation, financial statement analysis, fund flow analysis, the statement of cash flows; Management accounting – concept, need, importance and scope; Cost accounting – records and processes, cost ledger and control accounts, reconciliation and integration between financial and cost accounts; Overhead cost and control, Job and process costing, Budget and budgetary control, Performance budgeting, Zero-base budgeting, relevant costing and costing for decision-making, standard costing and variance analysis, marginal costing and absorption costing.

##### 5. Financial Management:

Goals of finance function; Concepts of value and return; Valuation of bonds and shares; Management of working capital: Estimation and financing; Management of cash, receivables, inventory and current liabilities; Cost of capital; Capital budget-

ing; Financial and operating leverage; Design of capital structure: theories and practices; Shareholder value creation: dividend policy, corporate financial policy and strategy, management of corporate distress and restructuring strategy; Capital and money markets: institutions and instruments; Leasing, hire purchase and venture capital; Regulation of capital market; Risk and return: portfolio theory; CAPM; APT; Financial derivatives: option, futures, swap; Recent reforms in financial sector.

#### 6. Marketing Management:

Concept, evolution and scope; Marketing strategy formulation and components of marketing plan; Segmenting and targeting the market; Positioning and differentiating the market offering; Analyzing competition; Analyzing consumer markets; Industrial buyer behaviour; Market research; Product strategy; Pricing strategies; Designing and managing Marketing channels; Integrated marketing communications; Building customer satisfaction, Value and retention; Services and non-profit marketing; Ethics in marketing; Consumer protection; Internet marketing; Retail management; Customer relationship management; Concept of holistic marketing.

#### PAPER – II

#### 1. Quantitative Techniques in Decision Making:

Descriptive statistics – tabular, graphical and numerical methods, introduction to probability, discrete and continuous probability distributions, inferential statistics-sampling distributions, central limit theorem, hypothesis testing for differences between means and proportions, inference about population variances, Chi-square and ANOVA, simple correlation and regression, time series and forecasting, decision theory, index numbers; Linear programming – problem formulation, simplex method and graphical solution, sensitivity analysis.

#### 2. Production and Operations Management:

Fundamentals of operations management; Organizing for production; Aggregate production planning, capacity planning, plant design: process planning, plant size and scale of operations, Management of facilities; Line balancing; Equipment replacement and maintenance; Production control; Supply chain management - vendor evaluation and audit; Quality management; Statistical process control, Six Sigma; Flexibility and agility in manufacturing systems; World class manufacturing; Project management concepts, R&D management, Management of service operations; Role and importance of materials management, value analysis, make or buy decision; Inventory control, MRP; Waste management.

#### 3. Management Information System:

Conceptual foundations of information systems; Information theory; Information resource management; Types of information systems; Systems development - Overview of systems and design; System development management life-cycle, Designing for online and distributed environments; Implementation and control of project; Trends in information technology; Managing data resources - Organising data; DSS and RDBMS; Enterprise Resource Planning (ERP), Expert systems, e-Business architecture, e-Governance; Information systems planning, Flexibility in information systems; User involvement; Evaluation of information systems.

#### 4. Government Business Interface:

State participation in business, Interaction between Government, Business and different Chambers of Commerce and Industry in India; Government's policy with regard to Small Scale Industries;

Government clearances for establishing a new enterprise; Public Distribution System; Government control over price and distribution; Consumer Protection Act (CPA) and The Role of voluntary organizations in protecting consumers' rights; New Industrial Policy of the Government: liberalization, deregulation and privatisation; Indian planning system; Government policy concerning development of Backward areas/regions; The Responsibilities of the business as well as the Government to protect the environment; Corporate Governance; Cyber Laws.

#### 5. Strategic Management:

Business policy as a field of study; Nature and scope of strategic management, Strategic intent, vision, objectives and policies; Process of strategic planning and implementation; Environmental analysis and internal analysis; SWOT analysis; Tools and techniques for strategic analysis - Impact matrix: The experience curve, BCG matrix, GEC mode, Industry analysis, Concept of value chain; Strategic profile of a firm; Framework for analysing competition; Competitive advantage of a firm; Generic competitive strategies; Growth strategies – expansion, integration and diversification; Concept of core competence, Strategic flexibility; Reinventing strategy; Strategy and structure; Chief Executive and Board; Turnaround management; Management of strategic change; Strategic alliances, Mergers and Acquisitions; Strategy and corporate evolution in the Indian context.

#### 6. International Business:

International Business Environment: Changing composition of trade in goods and services; India's Foreign Trade: Policy and trends; Financing of International trade; Regional Economic Cooperation; FTAs; Internationalisation of service firms; International production; Operation Management in International companies; International Taxation; Global competitiveness and technological developments; Global e-Business; Designing global organisational structure and control; Multicultural management; Global business strategy; Global marketing strategies; Export Management; Export-Import procedures; Joint Ventures; Foreign Investment: Foreign direct investment and foreign portfolio investment; Cross-border Mergers and Acquisitions; Foreign Exchange Risk Exposure Management; World Financial Markets and International Banking; External Debt Management; Country Risk Analysis.

### MATHEMATICS

#### PAPER - I

#### (1) Linear Algebra:

Vector spaces over  $R$  and  $C$ , linear dependence and independence, subspaces, bases, dimension; Linear transformations, rank and nullity, matrix of a linear transformation.

Algebra of Matrices; Row and column reduction, Echelon form, congruence's and similarity; Rank of a matrix; Inverse of a matrix; Solution of system of linear equations; Eigenvalues and eigenvectors, characteristic polynomial, Cayley-Hamilton theorem, Symmetric, skew-Symmetric, Hermitian, skew-Hermitian, orthogonal and unitary matrices and their eigenvalues.

#### (2) Calculus:

Real numbers, functions of a real variable, limits, continuity, differentiability, mean-value theorem, Taylor's theorem with remainders, indeterminate forms, maxima and minima, asymptotes; Curve tracing; Functions of two or three variables: limits, continuity, partial derivatives, maxima and minima, Lagrange's method of multipliers, Jacobian.

Riemann's definition of definite integrals; Indefinite integrals; Infinite and improper integrals; Double and triple integrals (evaluation techniques only); Areas, surface and volumes.

#### (3) Analytic Geometry:

Cartesian and polar coordinates in three dimensions, second degree equations in three variables, reduction to canonical forms, straight lines, shortest distance between two skew lines; Plane, sphere, cone, cylinder, paraboloid, ellipsoid, hyperboloid of one and two sheets and their properties.

#### (4) Ordinary Differential Equations:

Formulation of differential equations; Equations of first order and first degree, integrating factor; Orthogonal trajectory; Equations of first order but not of first degree, Clairaut's equation, singular solution.

Second and higher order linear equations with constant coefficients, complementary function, particular integral and general solution.

Second order linear equations with variable coefficients, Euler-Cauchy equation; Determination of complete solution when one solution is known using method of variation of parameters.

Laplace and Inverse Laplace transforms and their properties; Laplace transforms of elementary functions. Application to initial value problems for 2nd order linear equations with constant coefficients.

#### (5) Dynamics & Statics:

Rectilinear motion, simple harmonic motion, motion in a plane, projectiles; constrained motion; Work and energy, conservation of energy; Kepler's laws, orbits under central forces.

Equilibrium of a system of particles; Work and potential energy, friction; common catenary; Principle of virtual work; Stability of equilibrium, equilibrium of forces in three dimensions.

#### (6) Vector Analysis:

Scalar and vector fields, differentiation of vector field of a scalar variable; Gradient, divergence and curl in cartesian and cylindrical coordinates; Higher order derivatives; Vector identities and vector equations.

Application to geometry: Curves in space, Curvature and torsion; Serret-Frenet's formulae.

Gauss and Stokes' theorems, Green's identities.

#### PAPER - II

#### (1) Algebra:

Groups, subgroups, cyclic groups, cosets, Lagrange's Theorem, normal subgroups, quotient groups, homomorphism of groups, basic isomorphism theorems, permutation groups, Cayley's theorem.

Rings, subrings and ideals, homomorphisms of rings; Integral domains, principal ideal domains, Euclidean domains and unique factorization domains; Fields, quotient fields.

#### (2) Real Analysis:

Real number system as an ordered field with least upper bound property; Sequences, limit of a sequence, Cauchy sequence, completeness of real line; Series and its convergence, absolute and conditional convergence of series of real and complex terms, rearrangement of series.

Continuity and uniform continuity of functions, properties of continuous functions on compact sets.

Riemann integral, improper integrals; Fundamental theorems of integral calculus.

Uniform convergence, continuity, differentiability and integrability for sequences and series of functions; Partial derivatives of functions of several (two or three) variables, maxima and minima.

#### (3) Complex Analysis:

Analytic functions, Cauchy-Riemann

equations, Cauchy's theorem, Cauchy's integral formula, power series representation of an analytic function, Taylor's series; Singularities; Laurent's series; Cauchy's residue theorem; Contour integration.

#### (4) Linear Programming:

Linear programming problems, basic solution, basic feasible solution and optimal solution; Graphical method and simplex method of solutions; Duality. Transportation and assignment problems.

#### (5) Partial differential equations:

Family of surfaces in three dimensions and formulation of partial differential equations; Solution of quasilinear partial differential equations of the first order, Cauchy's method of characteristics; Linear partial differential equations of the second order with constant coefficients, canonical form; Equation of a vibrating string, heat equation, Laplace equation and their solutions.

#### (6) Numerical Analysis and Computer programming:

Numerical methods: Solution of algebraic and transcendental equations of one variable by bisection, Regula-Falsi and Newton-Raphson methods; solution of system of linear equations by Gaussian elimination and Gauss-Jordan (direct), Gauss-Seidel(Iterative) methods. Newton's (forward and backward) interpolation, Lagrange's interpolation.

Numerical integration: Trapezoidal rule, Simpson's rules, Gaussian quadrature formula.

Numerical solution of ordinary differential equations: Euler and Runge Kutta-methods.

Computer Programming: Binary system; Arithmetic and logical operations on numbers; Octal and Hexadecimal systems; Conversion to and from decimal systems; Algebra of binary numbers.

Elements of computer systems and concept of memory; Basic logic gates and truth tables, Boolean algebra, normal forms.

Representation of unsigned integers, signed integers and reals, double precision reals and long integers.

Algorithms and flow charts for solving numerical analysis problems.

#### (7) Mechanics and Fluid Dynamics:

Generalized coordinates; D'Alembert's principle and Lagrange's equations; Hamilton equations; Moment of inertia; Motion of rigid bodies in two dimensions.

Equation of continuity; Euler's equation of motion for inviscid flow; Stream-lines, path of a particle; Potential flow; Two-dimensional and axisymmetric motion; Sources and sinks, vortex motion; Navier-Stokes equation for a viscous fluid.

### MECHANICAL ENGINEERING

#### PAPER - I

#### 1. Mechanics:

##### 1.1 Mechanics of rigid bodies:

Equations of equilibrium in space and its application; first and second moments of area; simple problems on friction; kinematics of particles for plane motion; elementary particle dynamics.

##### 1.2 Mechanics of deformable bodies:

Generalized Hooke's law and its application; design problems on axial stress, shear stress and bearing stress; material properties for dynamic loading; bending shear and stresses in beams; determination of principle stresses and strains - analytical and graphical; compound and combined stresses; bi-axial stresses - thin walled pressure vessel; material behaviour and design factors for dynamic load; design of circular shafts for bending and torsional load only; deflection of beam for statically determinate problems; theories of failure.

#### 2. Engineering Materials:

Basic concepts on structure of solids;

common ferrous and non-ferrous materials and their applications; heat-treatment of steels; non-metals- plastics, ceramics, composite materials and nano-materials.

### 3. Theory of Machines:

Kinematic and dynamic analysis of plane mechanisms. Cams, Gears and epicyclic gear trains, flywheels, governors, balancing of rigid rotors, balancing of single and multicylinder engines, linear vibration analysis of mechanical systems (single degree of freedom), Critical speeds and whirling of shafts.

### 4. Manufacturing Science:

#### 4.1 Manufacturing Process:

Machine tool engineering – Merchant's force analysis; Taylor's tool life equation; conventional machining; NC and CNC machining process; jigs and fixtures.

Non-conventional machining – EDM, ECM, ultrasonic, water jet machining etc; application of lasers and plasmas; energy rate calculations.

Forming and welding processes- standard processes.

Metrology - concept of fits and tolerances; tools and gauges; comparators; inspection of length; position; profile and surface finish.

#### 4.2. Manufacturing Management:

System design: factory location- simple OR models; plant layout - methods based; applications of engineering economic analysis and break- even analysis for product selection, process selection and capacity planning; predetermined time standards.

System planning; forecasting methods based on regression and decomposition, design and balancing of multi model and stochastic assembly lines; inventory management – probabilistic inventory models for order time and order quantity determination; JIT systems; strategic sourcing; managing inter plant logistics.

System operations and control: Scheduling algorithms for job shops; applications of statistical methods for product and process quality control - applications of control charts for mean, range, percent defective, number of defectives and defects per unit; quality cost systems; management of resources, organizations and risks in projects.

System improvement: Implementation of systems, such as total quality management, developing and managing flexible, lean and agile organizations.

### PAPER - II

#### 1. Thermodynamics, Gas Dynamics and Turbine:

1.1 Basic concept of First –law and second law of Thermodynamics; concept of entropy and reversibility; availability and unavailability and irreversibility.

1.2 Classification and properties of fluids; incompressible and compressible fluids flows; effect of Mach number and compressibility; continuity momentum and energy equations; normal and oblique shocks; one dimensional isentropic flow; flow of fluids in duct with frictions that transfer.

1.3 Flow through fans, blowers and compressors; axial and centrifugal flow configuration; design of fans and compressors; single problems compresses and turbine cascade; open and closed cycle gas turbines; work done in the gas turbine; reheat and regenerators.

#### 2. Heat Transfer:

2.1 Conduction heat transfer- general conduction equation - Laplace, Poisson and Fourier equations; Fourier law of conduction; one dimensional steady state heat conduction applied to simple wall, solid and hollow cylinder & spheres.

2.2 Convection heat transfer- Newton's law of convection; free and forced convection; heat transfer during laminar and turbulent flow of an incompressible fluid over a flat plate; concepts of Nusselt number, hydrodynamic and thermal

boundary layer their thickness; Prandtl number; analogy between heat and momentum transfer- Reynolds, Colburn, Prandtl analogies; heat transfer during laminar and turbulent flow through horizontal tubes; free convection from horizontal and vertical plates.

2.3 Black body radiation - basic radiation laws such as Stefan-Boltzman, Planck distribution, Wein's displacement etc.

2.4 Basic heat exchanger analysis; classification of heat exchangers.

#### 3. I.C. Engines:

3.1 Classification, thermodynamic cycles of operation; determination of break power, indicated power, mechanical efficiency, heat balance sheet, interpretation of performance characteristics, petrol, gas and diesel engines.

3.2 Combustion in SI and CI engines, normal and abnormal combustion; effect of working parameters on knocking, reduction of knocking; Forms of combustion chamber for SI and CI engines; rating of fuels; additives; emission.

3.3 Different systems of IC engines-fuels; lubricating; cooling and transmission systems. Alternate fuels in IC engines.

#### 4. Steam Engineering:

4.1 Steam generation- modified Rankine cycle analysis; Modern steam boilers; steam at critical and supercritical pressures; draught equipment; natural and artificial draught; boiler fuels solid, liquid and gaseous fuels. Steam turbines - principle; types; compounding; impulse and reaction turbines; axial thrust.

4.2 Steam nozzles- flow of steam in convergent and divergent nozzle; pressure at throat for maximum discharge with different initial steam conditions such as wet, saturated and superheated, effect of variation of back pressure; supersaturated flow of steam in nozzles, Wilson line.

4.3 Rankine cycle with internal and external irreversibility; reheat factor; reheating and regeneration, methods of governing; back pressure and pass out turbines.

4.4 Steam power plants - combined cycle power generation; heat recovery steam generators (HRSG) fired and unfired, co-generation plants.

#### 5. Refrigeration and air-conditioning:

5.1 Vapour compression refrigeration cycle - cycle on p-H & T-s diagrams; eco-friendly refrigerants - R134a,123; Systems like evaporators, condensers, compressor, expansion devices. Simple vapour absorption systems.

5.2 Psychrometry - properties; processes; charts; sensible heating and cooling; humidification and dehumidification effective temperature; air-conditioning load calculation; simple duct design.

## MEDICAL SCIENCE

### PAPER - I

#### 1. Human Anatomy:

Applied anatomy including blood and nerve supply of upper and lower limbs and joints of shoulder, hip and knee.

Gross anatomy, blood supply and lymphatic drainage of tongue, thyroid, mammary gland, stomach, liver, prostate, gonads and uterus.

Applied anatomy of diaphragm, perineum and inguinal region.

Clinical anatomy of kidney, urinary bladder, uterine tubes, vas deferens.

**Embryology:** Placenta and placental barrier. Development of heart, gut, kidney, uterus, ovary, testis and their common congenital abnormalities.

**Central and peripheral autonomic nervous system :** Gross and clinical anatomy of ventricles of brain, circulation of cerebrospinal fluid; Neural pathways and lesions of cutaneous sensations, hearing and vision; Cranial nerves, distribution and clinical significance; Components of autonomic nervous system.

#### 2. Human Physiology:

Conduction and transmission of impulse, mechanism of contraction, neuromuscular transmission, reflexes, control of equilibrium, posture and muscle tone, descending pathways, functions of cerebellum, basal ganglia, Physiology of sleep and consciousness.

**Endocrine system:** Mechanism of action of hormones, formation, secretion, transport, metabolism, function and regulation of secretion of pancreas and pituitary gland.

**Physiology of reproductive system:** Menstrual cycle, lactation, pregnancy.

**Blood:** Development, regulation and fate of blood cells.

Cardio-vascular, cardiac output, blood pressure, regulation of cardiovascular functions;

#### 3. Biochemistry:

Organ function tests-liver, kidney, thyroid Protein synthesis.

Vitamins and minerals.

Restriction fragment length polymorphism (RFLP).

Polymerase chain reaction (PCR).

Radio - immunoassays (RIA).

#### 4. Pathology:

Inflammation and repair, disturbances of growth and cancer, Pathogenesis and histopathology of rheumatic and ischemic heart disease and diabetes mellitus. Differentiation between benign, malignant, primary and metastatic malignancies, Pathogenesis and histopathology of bronchogenic carcinoma, carcinoma breast, oral cancer, cancer cervix, leukemia, Etiology, pathogenesis and histopathology of - cirrhosis liver, glomerulonephritis, tuberculosis, acute osteomyelitis.

#### 5. Microbiology:

Humoral and cell mediated immunity Diseases caused by and laboratory diagnosis of-

- Meningococcus, Salmonella
- Shigella, Herpes, Dengue, Polio
- HIV/AIDS, Malaria, E. Histolytica, Giardia
- Candida, Cryptococcus, Aspergillus

#### 6. Pharmacology:

Mechanism of action and side effects of the following drugs

- Antipyretics and analgesics, Antibiotics, Antimalaria; Antikala-azar, Antidiabetics
- Antihypertensive, Antidiuretics, General and cardiac vasodilators, Antiviral, Antiparasitic, Antifungal, Immunosuppressants
- Anticancer

#### 7. Forensic Medicine and Toxicology:

Forensic examination of injuries and wounds; Examination of blood and seminal stains; poisoning, sedative overdose, hanging, drowning, burns, DNA and finger print study.

### PAPER - II

#### 1. General Medicine:

Etiology, clinical features, diagnosis and principles of management (including prevention) of: - Tetanus, Rabies, AIDS, Dengue, Kala-azar, Japanese Encephalitis.

Etiology, clinical features, diagnosis and principles of management of: Ischaemic heart disease, pulmonary embolism.

Bronchial asthma.

Pleural effusion, tuberculosis, Malabsorption syndromes, acid peptic diseases, Viral hepatitis and cirrhosis of liver.

Glomerulonephritis and pyelonephritis, renal failure, nephrotic syndrome, renovascular hypertension, complications of diabetes mellitus, coagulation disorders, leukemia, Hypo and hyper thyroidism, meningitis and encephalitis.

Imaging in medical problems, ultrasound, echocardiogram, CT scan, MRI.

Anxiety and Depressive Psychosis and

schizophrenia and ECT.

#### 2. Pediatrics:

Immunization, Baby friendly hospital, congenital cyanotic heart disease, respiratory distress syndrome, broncho - pneumonias, kernicterus. IMNCI classification and management, PEM grading and management. ARI and Diarrhea of under five and their management.

#### 3. Dermatology:

Psoriasis, Allergic dermatitis, scabies, eczema, vitiligo, Stevan Johnson's syndrome, Lichen Planus.

#### 4. General Surgery:

Clinical features, causes, diagnosis and principles of management of cleft palate, harelip.

Laryngeal tumor, oral and esophageal tumors.

Peripheral arterial diseases, varicose veins, coarctation of aorta

Tumors of Thyroid, Adrenal Glands

Abscess, cancer, fibroadenoma and adenosis of breast.

Bleeding peptic ulcer, tuberculosis of bowel, ulcerative colitis, cancer stomach.

Renal mass, cancer Prostate..

Haemothorax, stones of Gall bladder, Kidney, Ureter and Urinary Bladder.

Management of surgical conditions of Rectum, Anus and Anal canal, Gall bladder and Bile ducts

Splenomegaly, cholecystitis, portal hypertension, liver abscess, peritonitis, carcinoma head of pancreas.

Fractures of spine, Colles' fracture and bone tumors.

Endoscopy

Laparoscopic Surgery.

#### 5. Obstetrics and Gynaecology including Family Planning:

Diagnosis of pregnancy.

Labour management, complications of 3rd stage, Antepartum and postpartum hemorrhage, resuscitation of the newborn, Management of abnormal lie and difficult labour, Management of small for date or premature newborn.

Diagnosis and management of anemia. Preeclampsia and Toxaemias of pregnancy, Management of Post menopausal Syndrome.

Intra-uterine devices, pills, tubectomy and vasectomy. Medical termination of pregnancy including legal aspects.

Cancer cervix.

Leucorrhoea, pelvic pain, infertility, dysfunctional uterine bleeding (DUB), amenorrhoea, Fibroid and prolapse of uterus.

#### 6. Community Medicine (Preventive and Social Medicine):

Principles, methods, approach and measurements of Epidemiology Nutrition, nutritional diseases / disorders & Nutrition Programmes.

Health information Collection, Analysis and Presentation.

Objectives, components and critical analysis of National programmes for control/eradication of:

Malaria, Kala-azar, Filaria and Tuberculosis,

HIV/AIDS, STDs and Dengue

Critical appraisal of Health care delivery system.

Health management and administration: Techniques, Tools, Programme

Implementation and Evaluation.

Objective, Component, Goals and Status of Reproductive and Child Health,

National Rural Health Mission and Millennium Development Goals

Management of hospital and industrial waste.

## PHILOSOPHY

### PAPER - I

#### History and Problems of Philosophy:

1. Plato and Aristotle: Ideas; Substance; Form and Matter; Causation; Actuality and Potentiality.

2. Rationalism (Descartes, Spinoza, Leibniz): Cartesian Method and Certain



Knowledge; Substance; God; Mind-Body Dualism; Determinism and Freedom.

3. Empiricism (Locke, Berkeley, Hume): Theory of Knowledge; Substance and Qualities; Self and God; Scepticism.

4. Kant: Possibility of Synthetic a priori Judgments; Space and Time; Categories; Ideas of Reason; Antinomies; Critique of Proofs for the Existence of God

5. Hegel: Dialectical Method; Absolute Idealism

6. Moore, Russell and Early Wittgenstein: Defence of Commonsense; Refutation of Idealism; Logical Atomism; Logical Constructions; Incomplete Symbols; Picture Theory of Meaning; Saying and Showing.

7. Logical Positivism: Verification Theory of Meaning; Rejection of Metaphysics; Linguistic Theory of Necessary Propositions.

8. Later Wittgenstein: Meaning and Use; Language-games; Critique of Private Language.

9. Phenomenology (Husserl): Method; Theory of Essences; Avoidance of Psychologism.

10. Existentialism (Kierkegaard, Sartre, Heidegger): Existence and Essence; Choice, Responsibility and Authentic Existence; Being-in-the-world and Temporality.

11. Quine and Strawson: Critique of Empiricism; Theory of Basic Particulars and Persons.

12. Cârâvâka : Theory of Knowledge; Rejection of Transcendent Entities.

13. Jainism: Theory of Reality; Saptabhaḍginaya; Bondage and Liberation.

14. Schools of Buddhism: Pratyāsamutpāda; Ksanikavada, Nairātmyavāda

15. Nyāya- Vaiśeṣika: Theory of Categories; Theory of Appearance; Theory of Pramāna; Self, Liberation; God; Proofs for the Existence of God; Theory of Causation; Atomistic Theory of Creation.

16. Sāmkhya: Prakṛti; Purusa; Causation; Liberation

17. Yoga: Citta; Cittavṛtti; Klesas; Samadhi; Kaivalya.

18. Mimāṃsā: Theory of Knowledge

19. Schools of Vedānta: Brahman; Īvara; Ātman; Jiva; Jagat; Māyā; Avidyā; Adhyāsa; Moksa; Aprthaksiddhi; Pancavidhabheda

20. Aurobindo: Evolution, Involution; Integral Yoga.

#### PAPER – II

##### Socio-Political Philosophy

1. Social and Political Ideals: Equality, Justice, Liberty.

2. Sovereignty: Austin, Bodin, Laski, Kautilya.

3. Individual and State: Rights; Duties and Accountability

4. Forms of Government: Monarchy; Theocracy and Democracy.

5. Political Ideologies: Anarchism; Marxism and Socialism

6. Humanism; Secularism; Multiculturalism.

7. Crime and Punishment: Corruption, Mass Violence, Genocide, Capital Punishment.

8. Development and Social Progress.

9. Gender Discrimination: Female Foeticide, Land and Property Rights; Empowerment.

10. Caste Discrimination: Gandhi and Ambedkar

##### Philosophy of Religion:

1. Notions of God: Attributes; Relation to Man and the World. (Indian and Western).

2. Proofs for the Existence of God and their Critique (Indian and Western).

3. Problem of Evil.

4. Soul: Immortality; Rebirth and Liberation.

5. Reason, Revelation and Faith.

6. Religious Experience: Nature and Object (Indian and Western).

7. Religion without God.

8. Religion and Morality.

9. Religious Pluralism and the Problem of Absolute Truth.

10. Nature of Religious Language: Analogical and Symbolic; Cognitivist and Non- cognitive.

## PHYSICS

### PAPER - I

#### 1. (a) Mechanics of Particles:

Laws of motion; conservation of energy and momentum, applications to rotating frames, centripetal and Coriolis accelerations; Motion under a central force; Conservation of angular momentum, Kepler's laws; Fields and potentials; Gravitational field and potential due to spherical bodies, Gauss and Poisson equations, gravitational self-energy; Two-body problem; Reduced mass; Rutherford scattering; Centre of mass and laboratory reference frames.

#### (b) Mechanics of Rigid Bodies:

System of particles; Centre of mass, angular momentum, equations of motion; Conservation theorems for energy, momentum and angular momentum; Elastic and inelastic collisions; Rigid body; Degrees of freedom, Euler's theorem, angular velocity, angular momentum, moments of inertia, theorems of parallel and perpendicular axes, equation of motion for rotation; Molecular rotations (as rigid bodies); Di and tri-atomic molecules; Precessional motion; top, gyroscope.

#### (c) Mechanics of Continuous Media:

Elasticity, Hooke's law and elastic constants of isotropic solids and their interrelation; Streamline (Laminar) flow, viscosity, Poiseuille's equation, Bernoulli's equation, Stokes' law and applications.

#### (d) Special Relativity:

Michelson-Morley experiment and its implications; Lorentz transformations-length contraction, time dilation, addition of relativistic velocities, aberration and Doppler effect, mass-energy relation, simple applications to a decay process; Four dimensional momentum vector; Covariance of equations of physics.

### 2. Waves and Optics:

#### (a) Waves:

Simple harmonic motion, damped oscillation, forced oscillation and resonance; Beats; Stationary waves in a string; Pulses and wave packets; Phase and group velocities; Reflection and Refraction from Huygens' principle.

#### (b) Geometrical Optics:

Laws of reflection and refraction from Fermat's principle; Matrix method in paraxial optics-thin lens formula, nodal planes, system of two thin lenses, chromatic and spherical aberrations.

#### (c) Interference:

Interference of light-Young's experiment, Newton's rings, interference by thin films, Michelson interferometer; Multiple beam interference and Fabry-Perot interferometer.

#### (d) Diffraction:

Fraunhofer diffraction-single slit, double slit, diffraction grating, resolving power; Diffraction by a circular aperture and the Airy pattern; Fresnel diffraction: half-period zones and zone plates, circular aperture.

#### (e) Polarization and Modern Optics:

Production and detection of linearly and circularly polarized light; Double refraction, quarter wave plate; Optical activity; Principles of fibre optics, attenuation; Pulse dispersion in step index and parabolic index fibres; Material dispersion, single mode fibres; Lasers-Einstein A and B coefficients; Ruby and He-Ne lasers; Characteristics of laser light-spatial and temporal coherence; Focusing of laser beams; Three-level scheme for laser

operation; Holography and simple applications.

### 3. Electricity and Magnetism:

(a) **Electrostatics and Magnetostatics:** Laplace and Poisson equations in electrostatics and their applications; Energy of a system of charges, multipole expansion of scalar potential; Method of images and its applications; Potential and field due to a dipole, force and torque on a dipole in an external field; Dielectrics, polarization; Solutions to boundary-value problems-conducting and dielectric spheres in a uniform electric field; Magnetic shell, uniformly magnetized sphere; Ferromagnetic materials, hysteresis, energy loss.

#### (b) Current Electricity:

Kirchhoff's laws and their applications; Biot-Savart law, Ampere's law, Faraday's law, Lenz' law; Self-and mutual-inductances; Mean and r m s values in AC circuits; DC and AC circuits with R, L and C components; Series and parallel resonances; Quality factor; Principle of transformer.

#### (c) Electromagnetic Waves and Blackbody Radiation:

Displacement current and Maxwell's equations; Wave equations in vacuum, Poynting theorem; Vector and scalar potentials; Electromagnetic field tensor, covariance of Maxwell's equations; Wave equations in isotropic dielectrics, reflection and refraction at the boundary of two dielectrics; Fresnel's relations; Total internal reflection; Normal and anomalous dispersion; Rayleigh scattering; Blackbody radiation and Planck's radiation law, Stefan-Boltzmann law, Wien's displacement law and Rayleigh-Jeans' law.

### 4. Thermal and Statistical Physics:

#### (a) Thermodynamics:

Laws of thermodynamics, reversible and irreversible processes, entropy; Isothermal, adiabatic, isobaric, isochoric processes and entropy changes; Otto and Diesel engines, Gibbs' phase rule and chemical potential; van der Waals equation of state of a real gas, critical constants; Maxwell-Boltzmann distribution of molecular velocities, transport phenomena, equipartition and virial theorems; Dulong-Petit, Einstein, and Debye's theories of specific heat of solids; Maxwell relations and applications; Clausius- Clapeyron equation; Adiabatic demagnetisation, Joule-Kelvin effect and liquefaction of gases.

#### (b) Statistical Physics:

Macro and micro states, statistical distributions, Maxwell-Boltzmann, Bose-Einstein and Fermi-Dirac distributions, applications to specific heat of gases and blackbody radiation; Concept of negative temperatures.

### PAPER - II

#### 1. Quantum Mechanics:

Wave-particle duality; Schrodinger equation and expectation values; Uncertainty principle; Solutions of the one-dimensional Schrodinger equation for a free particle (Gaussian wave-packet), particle in a box, particle in a finite well, linear harmonic oscillator; Reflection and transmission by a step potential and by a rectangular barrier; Particle in a three dimensional box, density of states, free electron theory of metals; Angular momentum; Hydrogen atom; Spin half particles, properties of Pauli spin matrices.

#### 2. Atomic and Molecular Physics:

Stern-Gerlach experiment, electron spin, fine structure of hydrogen atom; L-S coupling, J-J coupling; Spectroscopic notation of atomic states; Zeeman effect; Frank-Condon principle and applications; Elementary theory of rotational, vibrational and electronic spectra of diatomic molecules; Raman effect and molecular structure; Laser Raman spectroscopy;

Importance of neutral hydrogen atom, molecular hydrogen and molecular hydrogen ion in astronomy; Fluorescence and Phosphorescence; Elementary theory and applications of NMR and EPR; Elementary ideas about Lamb shift and its significance.

### 3. Nuclear and Particle Physics:

Basic nuclear properties-size, binding energy, angular momentum, parity, magnetic moment; Semi-empirical mass formula and applications, mass parabolas; Ground state of deuteron, magnetic moment and non-central forces; Meson theory of nuclear forces; Salient features of nuclear forces; Shell model of the nucleus - successes and limitations; Violation of parity in beta decay; Gamma decay and internal conversion; Elementary ideas about Mossbauer spectroscopy; Q-value of nuclear reactions; Nuclear fission and fusion, energy production in stars; Nuclear reactors.

Classification of elementary particles and their interactions; Conservation laws; Quark structure of hadrons; Field quanta of electroweak and strong interactions; Elementary ideas about unification of forces; Physics of neutrinos.

### 4. Solid State Physics, Devices and Electronics:

Crystalline and amorphous structure of matter; Different crystal systems, space groups; Methods of determination of crystal structure; X-ray diffraction, scanning and transmission electron microscopies; Band theory of solids - conductors, insulators and semiconductors; Thermal properties of solids, specific heat, Debye theory; Magnetism: dia, para and ferromagnetism; Elements of superconductivity, Meissner effect, Josephson junctions and applications; Elementary ideas about high temperature superconductivity. Intrinsic and extrinsic semiconductors; p-n-p and n-p-n transistors; Amplifiers and oscillators; Op-amps; FET, JFET and MOSFET; Digital electronics-Boolean identities, De Morgan's laws, logic gates and truth tables; Simple logic circuits; Thermistors, solar cells; Fundamentals of microprocessors and digital computers.

## POLITICAL SCIENCE AND INTERNATIONAL RELATIONS

### PAPER - I

Political Theory and Indian Politics:

1. Political Theory: meaning and approaches.

2. Theories of the State: Liberal, Neo-liberal, Marxist, Pluralist, Post-colonial and feminist.

3. Justice: Conceptions of justice with special reference to Rawls' theory of justice and its communitarian critiques.

4. Equality: Social, political and economic; relationship between equality and freedom; Affirmative action.

5. Rights: Meaning and theories; different kinds of rights; concept of Human Rights.

6. Democracy: Classical and contemporary theories; different models of democracy – representative, participatory and deliberative.

7. Concept of power, hegemony, ideology and legitimacy.

8. Political Ideologies: Liberalism, Socialism, Marxism, Fascism, Gandhism and Feminism.

9. Indian Political Thought : Dharmashastra, Arthashastra and Buddhist traditions. Sir Syed Ahmed Khan, Sri Aurobindo, M.K. Gandhi, B.R. Ambedkar, M.N. Roy .

10. Western Political Thought: Plato, Aristotle, Machiavelli, Hobbes, Locke, John S. Mill, Marx, Gramsci, Hannah Arendt.

### Indian Government and Politics:

1. Indian Nationalism:

(a) Political Strategies of India's Freedom

Struggle: Constitutionalism to mass Satyagraha, Non-cooperation, Civil Disobedience; Militant and revolutionary movements, Peasant and workers' movements.

(b) Perspectives on Indian National Movement: Liberal, Socialist and Marxist; Radical humanist and Dalit.

2. Making of the Indian Constitution: Legacies of the British rule; different social and political perspectives.

3. Salient Features of the Indian Constitution: The Preamble, Fundamental Rights and Duties, Directive Principles; Parliamentary System and Amendment Procedures; Judicial Review and Basic Structure doctrine.

4. (a) Principal Organs of the Union Government: Envisaged role and actual working of the Executive, Legislature and Supreme Court.

(b) Principal Organs of the State Government: Envisaged role and actual working of the Executive, Legislature and High Courts.

5. Grassroots Democracy: Panchayati Raj and Municipal Government; significance of 73rd and 74th Amendments; Grassroot movements.

6. Statutory Institutions/Commissions: Election Commission, Comptroller and Auditor General, Finance Commission, Union Public Service Commission, National Commission for Scheduled Castes, National Commission for Scheduled Tribes, National Commission for Women; National Human Rights Commission, National Commission for Minorities, National Backward Classes Commission.

7. Federalism: Constitutional provisions; changing nature of centre-state relations; integrationist tendencies and regional aspirations; inter-state disputes.

8. Planning and Economic Development : Nehruvian and Gandhian perspectives; role of planning and public sector; Green Revolution, land reforms and agrarian relations; liberalization and economic reforms.

9. Caste, Religion and Ethnicity in Indian Politics.

10. Party System: National and regional political parties, ideological and social bases of parties; patterns of coalition politics; Pressure groups, trends in electoral behaviour; changing socio- economic profile of Legislators.

11. Social Movements: Civil liberties and human rights movements; women's movements; environmentalist movements.

#### PAPER - II

### Comparative Politics and International Relations

#### Comparative Political Analysis and International Politics:

1. Comparative Politics: Nature and major approaches; political economy and political sociology perspectives; limitations of the comparative method.

2. State in comparative perspective: Characteristics and changing nature of the State in capitalist and socialist economies, and, advanced industrial and developing societies.

3. Politics of Representation and Participation: Political parties, pressure groups and social movements in advanced industrial and developing societies.

4. Globalisation: Responses from developed and developing societies.

5. Approaches to the Study of International Relations: Idealist, Realist, Marxist, Functionalist and Systems theory.

6. Key concepts in International Relations: National interest, Security and power; Balance of power and deterrence; Transnational actors and collective security; World capitalist economy and global-

isation.

7. Changing International Political Order: (a) Rise of super powers; strategic and ideological Bipolarity, arms race and Cold War; nuclear threat;

(b) Non-aligned movement: Aims and achievements;

(c) Collapse of the Soviet Union; Unipolarity and American hegemony; relevance of non-alignment in the contemporary world.

8. Evolution of the International Economic System: From Brettonwoods to WTO; Socialist economies and the CMEA (Council for Mutual Economic Assistance); Third World demand for new international economic order; Globalisation of the world economy.

9. United Nations: Envisaged role and actual record; specialized UN agencies-aims and functioning; need for UN reforms.

10. Regionalisation of World Politics: EU, ASEAN, APEC, SAARC, NAFTA.

11. Contemporary Global Concerns: Democracy, human rights, environment, gender justice, terrorism, nuclear proliferation.

#### India and the World:

1. Indian Foreign Policy: Determinants of foreign policy; institutions of policy-making; continuity and change.

2. India's Contribution to the Non-Alignment Movement: Different phases; current role.

3. India and South Asia:

(a) Regional Co-operation: SAARC - past performance and future prospects.

(b) South Asia as a Free Trade Area.

(c) India's "Look East" policy.

(d) Impediments to regional co-operation: river water disputes; illegal cross-border migration; ethnic conflicts and insurgencies; border disputes.

4. India and the Global South: Relations with Africa and Latin America; leadership role in the demand for NIEO and WTO negotiations.

5. India and the Global Centres of Power: USA, EU, Japan, China and Russia.

6. India and the UN System: Role in UN Peace-keeping; demand for Permanent Seat in the Security Council.

7. India and the Nuclear Question: Changing perceptions and policy.

8. Recent developments in Indian Foreign policy: India's position on the recent crisis in Afghanistan, Iraq and West Asia, growing relations with US and Israel; vision of a new world order.

## PSYCHOLOGY

### PAPER - I

#### Foundations of Psychology

##### 1. Introduction:

Definition of Psychology; Historical antecedents of Psychology and trends in the 21st century; Psychology and scientific methods; Psychology in relation to other social sciences and natural sciences; Application of Psychology to societal problems.

##### 2. Methods of Psychology:

Types of research: Descriptive, evaluative, diagnostic and prognostic; Methods of Research: Survey, observation, case-study and experiments; Characteristics of experimental design and non-experimental design, Quasi-experimental designs; Focussed group discussions, brain storming, grounded theory approach.

##### 3. Research Methods:

Major steps in Psychological research (problem statement, hypothesis formulation, research designs, sampling, tools of data collection, analysis and interpretation and report writing) Fundamental versus applied research; Methods of data collection (interview, observation, questionnaire); Research designs (ex-post facto and experimental); Application of statistical technique (t - test, two way ANOVA correlation, regression and factor

analysis); Item response theory.

##### 4. Development of Human Behaviour:

Growth and development; Principles of development, Role of genetic and environmental factors in determining human behaviour; Influence of cultural factors in socialization; Life span development - Characteristics, development tasks, promoting psychological well-being across major stages of the life span.

##### 5. Sensation, Attention and Perception:

Sensation: concepts of threshold, absolute and difference thresholds, signal-detection and vigilance; Factors influencing attention including set and characteristics of stimulus; Definition and concept of perception, biological factors in perception; Perceptual organization-influence of past experiences, perceptual defence-factors influencing space and depth perception, size estimation and perceptual readiness; The plasticity of perception; Extrasensory perception; Culture and perception, Subliminal perception.

##### 6. Learning:

Concept and theories of learning (Behaviourists, Gestaltist and Information processing models); The Processes of extinction, discrimination and generalization; Programmed learning, probability learning, self-instructional learning, concepts; Types and the schedules of reinforcement, escape, avoidance and punishment, modeling and social learning.

##### 7. Memory:

Encoding and remembering; Short term memory, Long term memory, Sensory memory, Iconic memory, Echoic memory: The Multistore model, levels of processing; Organization and Mnemonic techniques to improve memory; Theories of forgetting: decay, interference and retrieval failure: Metamemory; Amnesia: Anterograde and retrograde.

##### 8. Thinking and Problem Solving:

Piaget's theory of cognitive development; Concept formation processes; Information processing, Reasoning and problem solving, Facilitating and hindering factors in problem solving, Methods of problem solving: Creative thinking and fostering creativity; Factors influencing decision making and judgment; Recent trends.

##### 9. Motivation and Emotion:

Psychological and physiological basis of motivation and emotion; Measurement of motivation and emotion; Effects of motivation and emotion on behaviour; Extrinsic and intrinsic motivation; Factors influencing intrinsic motivation; Emotional competence and the related issues.

##### 10. Intelligence and Aptitude:

Concept of intelligence and aptitude, Nature and theories of intelligence - Spearman, Thurstone, Gullford Vernon, Sternberg and J.P; Das; Emotional Intelligence, Social intelligence, measurement of intelligence and aptitudes, concept of IQ, deviation IQ, constancy of IQ; Measurement of multiple intelligence; Fluid intelligence and crystallized intelligence.

##### 11. Personality:

Definition and concept of personality; Theories of personality (psychoanalytical, socio-cultural, interpersonal, developmental, humanistic, behaviouristic, trait and type approaches); Measurement of personality (projective tests, pencil-paper test); The Indian approach to personality; Training for personality development; Latest approaches like big 5 factor theory; The notion of self in different traditions.

##### 12. Attitudes, Values and Interests:

Definition of attitudes, values and interests; Components of attitudes; Formation and maintenance of attitudes; Measurement of attitudes, values and

interests; Theories of attitude change; Strategies for fostering values; Formation of stereotypes and prejudices; Changing others behaviour; Theories of attribution; Recent trends.

##### 13. Language and Communication:

Human language - Properties, structure and linguistic hierarchy, Language acquisition-predisposition, critical period hypothesis; Theories of language development - Skinner and Chomsky; Process and types of communication - effective communication training.

##### 14. Issues and Perspectives in Modern Contemporary Psychology:

Computer application in the psychological laboratory and psychological testing; Artificial intelligence; Psycho cybernetics; Study of consciousness-sleep-wake schedules; dreams, stimulus deprivation, meditation, hypnotic/drug induced states; Extrasensory perception; Intersensory perception Simulation studies.

#### PAPER - II

### Psychology: Issues and Applications

#### 1. Psychological Measurement of Individual Differences:

The nature of individual differences; Characteristics and construction of standardized psychological tests; Types of psychological tests; Use, misuse and limitation of psychological tests; hical issues in the use of psychological tests.

#### 2. Psychological well being and Mental Disorders:

Concept of health-ill health; Positive health, well being; Causal factors in mental disorders (Anxiety disorders, mood disorders, schizophrenia and delusional disorders; personality disorders, substance abuse disorders); Factors influencing positive health, well being, life style and quality of life; Happiness disposition.

#### 3. Therapeutic Approaches:

Psychodynamic therapies; Behaviour therapies; Client centered therapy; Cognitive therapies; Indigenous therapies (Yoga, Meditation); Bio-feedback therapy; Prevention and rehabilitation of the mentally ill; Fostering mental health.

#### 4. Work Psychology and Organisational Behaviour:

Personnel selection and training; Use of psychological tests in the industry; Training and human resource development; Theories of work motivation - Herzberg, Maslow, Adam Equity theory, Porter and Lawler, Vroom; Leadership and participatory management; Advertising and marketing; Stress and its management; Ergonomics; consumer psychology; Managerial effectiveness; Transformational leadership; Sensitivity training; Power and politics in organizations.

#### 5. Application of Psychology to Educational Field:

Psychological principles underlying effective teaching-learning process; Learning styles; Gifted, retarded, learning disabled and their training; Training for improving memory and better academic achievement; Personality development and value education, Educational, vocational guidance and career counseling; Use of psychological tests in educational institutions; Effective strategies in guidance programmes.

#### 6. Community Psychology:

Definition and concept of community psychology; Use of small groups in social action; Arousing community consciousness and action for handling social problems; Group decision making and leadership for social change; Effective strategies for social change.

#### 7. Rehabilitation Psychology:

Primary, secondary and tertiary prevention programmes-role of psychologists; Organising of services for rehabilitation of physically, mentally and socially chal-

lenged persons including old persons, Rehabilitation of persons suffering from substance abuse, juvenile delinquency, criminal behaviour; Rehabilitation of victims of violence, Rehabilitation of HIV/AIDS victims, the role of social agencies.

### 8. Application of Psychology to disadvantaged groups:

The concepts of disadvantaged, deprivation; Social, physical, cultural and economic consequences of disadvantaged and deprived groups; Educating and motivating the disadvantaged towards development; Relative and prolonged deprivation.

### 9. Psychological problems of social integration:

The concept of social integration; The problem of caste, class, religion and language conflicts and prejudice; Nature and manifestation of prejudice between the in-group and out-group; Causal factors of social conflicts and prejudices; Psychological strategies for handling the conflicts and prejudices; Measures to achieve social integration.

### 10. Application of Psychology in Information Technology and Mass Media:

The present scenario of information technology and the mass media boom and the role of psychologists; Selection and training of psychology professionals to work in the field of IT and mass media; Distance learning through IT and mass media; Entrepreneurship through e-commerce; Multilevel marketing; Impact of TV and fostering value through IT and mass media; Psychological consequences of recent developments in Information Technology.

### 11. Psychology and Economic development:

Achievement motivation and economic development; Characteristics of entrepreneurial behaviour; Motivating and training people for entrepreneurship and economic development; Consumer rights and consumer awareness, Government policies for promotion of entrepreneurship among youth including women entrepreneurs.

### 12. Application of psychology to environment and related fields:

Environmental psychology-effects of noise, pollution and crowding; Population psychology: psychological consequences of population explosion and high population density; Motivating for small family norm; Impact of rapid scientific and technological growth on degradation of environment.

### 13. Application of psychology in other fields:

- Military Psychology  
Devising psychological tests for defence personnel for use in selection, Training, counseling; training psychologists to work with defence personnel in promoting positive health; Human engineering in defence.
- Sports Psychology  
Psychological interventions in improving performance of athletes and sports. Persons participating in Individual and Team Games.
- Media influences on pro and antisocial behaviour.
- Psychology of terrorism.

### 14. Psychology of Gender:

Issues of discrimination, Management of diversity; Glass ceiling effect, Self fulfilling prophesy, Women and Indian society.

## PUBLIC ADMINISTRATION

### PAPER - I

#### Administrative Theory

##### 1. Introduction:

Meaning, scope and significance of Public Administration; Wilson's vision of Public Administration; Evolution of the

discipline and its present status; New Public Administration; Public Choice approach; Challenges of liberalization, Privatisation, Globalisation; Good Governance: concept and application; New Public Management.

##### 2. Administrative Thought:

Scientific Management and Scientific Management movement; Classical Theory; Weber's bureaucratic model - its critique and post-Weberian Developments; Dynamic Administration (Mary Parker Follett); Human Relations School (Elton Mayo and others); Functions of the Executive (C.I. Barnard); Simon's decision-making theory; Participative Management (R. Likert, C. Argyris, D. McGregor).

##### 3. Administrative Behaviour:

Process and techniques of decision-making; Communication; Morale; Motivation Theories - content, process and contemporary; Theories of Leadership: Traditional and Modern.

##### 4. Organisations:

Theories - systems, contingency; Structure and forms: Ministries and Departments, Corporations, Companies, Boards and Commissions; Ad hoc and advisory bodies; Headquarters and Field relationships; Regulatory Authorities; Public - Private Partnerships.

##### 5. Accountability and control:

Concepts of accountability and control; Legislative, Executive and Judicial control over administration; Citizen and Administration; Role of media, interest groups, voluntary organizations; Civil society; Citizen's Charters; Right to Information; Social audit.

##### 6. Administrative Law:

Meaning, scope and significance; Dicey on Administrative law; Delegated legislation; Administrative Tribunals.

##### 7. Comparative Public Administration:

Historical and sociological factors affecting administrative systems; Administration and politics in different countries; Current status of Comparative Public Administration; Ecology and administration; Riggsian models and their critique.

##### 8. Development Dynamics:

Concept of development; Changing profile of development administration; 'Anti-development thesis'; Bureaucracy and development; Strong state versus the market debate; Impact of liberalisation on administration in developing countries; Women and development - the self-help group movement.

##### 9. Personnel Administration:

Importance of human resource development; Recruitment, training, career advancement, position classification, discipline, performance appraisal, promotion, pay and service conditions; employer-employee relations, grievance redressal mechanism; Code of conduct; Administrative ethics.

##### 10. Public Policy:

Models of policy-making and their critique; Processes of conceptualisation, planning, implementation, monitoring, evaluation and review and their limitations; State theories and public policy formulation.

##### 11. Techniques of Administrative Improvement:

Organisation and methods, Work study and work management; e-governance and information technology; Management aid tools like network analysis, MIS, PERT, CPM.

##### 12. Financial Administration:

Monetary and fiscal policies; Public borrowings and public debt Budgets - types and forms; Budgetary process; Financial accountability; Accounts and audit.

### PAPER - II

#### Indian Administration

##### 1. Evolution of Indian Administration:

Kautilya's Arthashastra; Mughal administration; Legacy of British rule in politics and administration - Indianization of public services, revenue administration, district administration, local self-government.

##### 2. Philosophical and Constitutional framework of government:

Salient features and value premises; Constitutionalism; Political culture; Bureaucracy and democracy; Bureaucracy and development.

##### 3. Public Sector Undertakings:

Public sector in modern India; Forms of Public Sector Undertakings; Problems of autonomy, accountability and control; Impact of liberalization and privatization.

##### 4. Union Government and Administration:

Executive, Parliament, Judiciary - structure, functions, work processes; Recent trends; Intragovernmental relations; Cabinet Secretariat; Prime Minister's Office; Central Secretariat; Ministries and Departments; Boards; Commissions; Attached offices; Field organizations.

##### 5. Plans and Priorities:

Machinery of planning; Role, composition and functions of the Planning Commission and the National Development Council; 'Indicative' planning; Process of plan formulation at Union and State levels; Constitutional Amendments (1992) and decentralized planning for economic development and social justice.

##### 6. State Government and Administration:

Union-State administrative, legislative and financial relations; Role of the Finance Commission; Governor; Chief Minister; Council of Ministers; Chief Secretary; State Secretariat; Directorates.

##### 7. District Administration since Independence:

Changing role of the Collector; Union-state-local relations; Imperatives of development management and law and order administration; District administration and democratic decentralization.

##### 8. Civil Services:

Constitutional position; Structure, recruitment, training and capacity-building; Good governance initiatives; Code of conduct and discipline; Staff associations; Political rights; Grievance redressal mechanism; Civil service neutrality; Civil service activism.

##### 9. Financial Management:

Budget as a political instrument; Parliamentary control of public expenditure; Role of finance ministry in monetary and fiscal area; Accounting techniques; Audit; Role of Controller General of Accounts and Comptroller and Auditor General of India.

##### 10. Administrative Reforms since Independence:

Major concerns; Important Committees and Commissions; Reforms in financial management and human resource development; Problems of implementation.

##### 11. Rural Development:

Institutions and agencies since independence; Rural development programmes: foci and strategies; Decentralization and Panchayati Raj; 73rd Constitutional amendment.

##### 12. Urban Local Government:

Municipal governance: main features, structures, finance and problem areas; 74th Constitutional Amendment; Global-local debate; New localism; Development dynamics, politics and administration with special reference to city management.

##### 13. Law and Order Administration:

British legacy; National Police Commission; Investigative agencies; Role of central and state agencies including paramilitary forces in maintenance of law and order and countering insurgency

and terrorism; Criminalisation of politics and administration; Police-public relations; Reforms in Police.

##### 14. Significant issues in Indian Administration:

Values in public service; Regulatory Commissions; National Human Rights Commission; Problems of administration in coalition regimes; Citizen-administration interface; Corruption and administration; Disaster management.

## SOCIOLOGY

### PAPER - I

#### FUNDAMENTALS OF SOCIOLOGY

##### 1. Sociology - The Discipline:

- Modernity and social changes in Europe and emergence of sociology.
- Scope of the subject and comparison with other social sciences.
- Sociology and common sense.

##### 2. Sociology as Science:

- Science, scientific method and critique.
- Major theoretical strands of research methodology.
- Positivism and its critique.
- Fact value and objectivity.
- Non-positivist methodologies.

##### 3. Research Methods and Analysis:

- Qualitative and quantitative methods.
- Techniques of data collection.
- Variables, sampling, hypothesis, reliability and validity.

##### 4. Sociological Thinkers:

- Karl Marx- Historical materialism, mode of production, alienation, class struggle.
- Emile Durkheim- Division of labour, social fact, suicide, religion and society.
- Max Weber- Social action, ideal types, authority, bureaucracy, protestant ethic and the spirit of capitalism.
- Talcott Parsons- Social system, pattern variables.
- Robert K. Merton- Latent and manifest functions, conformity and deviance, reference groups.
- Mead - Self and identity.

##### 5. Stratification and Mobility:

- Concepts- equality, inequality, hierarchy, exclusion, poverty and deprivation.
- Theories of social stratification- Structural functionalist theory, Marxist theory, Weberian theory.
- Dimensions - Social stratification of class, status groups, gender, ethnicity and race.
- Social mobility- open and closed systems, types of mobility, sources and causes of mobility.

##### 6. Works and Economic Life:

- Social organization of work in different types of society- slave society, feudal society, industrial /capitalist society.
- Formal and informal organization of work.
- Labour and society.

##### 7. Politics and Society:

- Sociological theories of power.
- Power elite, bureaucracy, pressure groups, and political parties.
- Nation, state, citizenship, democracy, civil society, ideology.
- Protest, agitation, social movements, collective action, revolution.

##### 8. Religion and Society:

- Sociological theories of religion.
- Types of religious practices: animism, monism, pluralism, sects, cults.
- Religion in modern society: religion and science, secularization, religious revivalism, fundamentalism.

##### 9. Systems of Kinship:

- Family, household, marriage.
- Types and forms of family.

- (c) Lineage and descent.
  - (d) Patriarchy and sexual division of labour.
  - (e) Contemporary trends.
- 10. Social Change in Modern Society:**
- (a) Sociological theories of social change.
  - (b) Development and dependency.
  - (c) Agents of social change.
  - (d) Education and social change.
  - (e) Science, technology and social change.

#### PAPER - II

### INDIAN SOCIETY : STRUCTURE AND CHANGE

#### A. Introducing Indian Society:

- (i) Perspectives on the study of Indian society:
  - (a) Indology (GS. Ghurye).
  - (b) Structural functionalism (M N Srinivas).
  - (c) Marxist sociology (A R Desai).
- (ii) Impact of colonial rule on Indian society :
  - (a) Social background of Indian nationalism.
  - (b) Modernization of Indian tradition.
  - (c) Protests and movements during the colonial period.
  - (d) Social reforms.

#### B. Social Structure:

- (i) Rural and Agrarian Social Structure:
  - (a) The idea of Indian village and village studies.
  - (b) Agrarian social structure - evolution of land tenure system, land reforms.
- (ii) Caste System:
  - (a) Perspectives on the study of caste systems: GS Ghurye, M N Srinivas, Louis Dumont, Andre Beteille.
  - (b) Features of caste system.
- (c) **Untouchability - forms and perspectives.**
  - (iii) Tribal communities in India:
    - (a) Definitional problems.
    - (b) Geographical spread.
    - (c) Colonial policies and tribes.
    - (d) Issues of integration and autonomy.
  - (iv) Social Classes in India:
    - (a) Agrarian class structure.
    - (b) Industrial class structure.
    - (c) Middle classes in India.
    - (v) Systems of Kinship in India:
      - (a) Lineage and descent in India.
      - (b) Types of kinship systems.
      - (c) Family and marriage in India.
      - (d) Household dimensions of the family.
      - (e) Patriarchy, entitlements and sexual division of labour.
  - (vi) **Religion and Society:**
    - (a) Religious communities in India.
    - (b) Problems of religious minorities.
- C. Social Changes in India:
  - (i) Visions of Social Change in India:
    - (a) Idea of development planning and mixed economy.
    - (b) Constitution, law and social change.
    - (c) Education and social change.
  - (ii) Rural and Agrarian transformation in India:
    - (a) Programmes of rural development, Community Development Programme, cooperatives, poverty alleviation schemes.
    - (b) Green revolution and social change.
    - (c) Changing modes of production in Indian agriculture .
    - (d) Problems of rural labour, bondage, migration.
  - (iii) Industrialization and Urbanisation in India:
    - (a) Evolution of modern industry in India.
    - (b) Growth of urban settlements in India.
    - (c) Working class: structure, growth, class mobilization.
    - (d) Informal sector, child labour.
    - (e) Slums and deprivation in urban areas.
  - (iv) Politics and Society:
    - (a) Nation, democracy and citizenship.

- (b) Political parties, pressure groups , social and political elite.
- (c) Regionalism and decentralization of power.
- (d) Secularization
- (v) Social Movements in Modern India:
  - (a) Peasants and farmers movements.
  - (b) Women's movement.
  - (c) Backward classes & Dalit movement.
  - (d) Environmental movements.
  - (e) Ethnicity and Identity movements.
  - (vi) Population Dynamics:
    - (a) Population size, growth, composition and distribution.
    - (b) Components of population growth: birth, death, migration.
    - (c) Population policy and family planning.
    - (d) Emerging issues: ageing, sex ratios, child and infant mortality, reproductive health.
  - (vii) Challenges of Social Transformation:
    - (a) Crisis of development: displacement, environmental problems and sustainability.
    - (b) Poverty, deprivation and inequalities.
    - (c) Violence against women.
    - (d) Caste conflicts.
    - (e) Ethnic conflicts, communalism, religious revivalism.
    - (f) Illiteracy and disparities in education.

### STATISTICS

#### PAPER - I

#### 1. Probability:

Sample space and events, probability measure and probability space, random variable as a measurable function, distribution function of a random variable, discrete and continuous-type random variable, probability mass function, probability density function, vector-valued random variable, marginal and conditional distributions, stochastic independence of events and of random variables, expectation and moments of a random variable, conditional expectation, convergence of a sequence of random variable in distribution, in probability, in p-th mean and almost everywhere, their criteria and inter-relations, Chebyshev's inequality and Khintchine's weak law of large numbers, strong law of large numbers and Kolmogoroff's theorems, probability generating function, moment generating function, characteristic function, inversion theorem, Linderberg and Levy forms of central limit theorem, standard discrete and continuous probability distributions.

#### 2. Statistical Inference:

Consistency, unbiasedness, efficiency, sufficiency, completeness, ancillary statistics, factorization theorem, exponential family of distribution and its properties, uniformly minimum variance unbiased (UMVU) estimation, Rao-Blackwell and Lehmann-Scheffe theorems, Cramer-Rao inequality for single parameter. Estimation by methods of moments, maximum likelihood, least squares, minimum chi-square and modified minimum chi-square, properties of maximum likelihood and other estimators, asymptotic efficiency, prior and posterior distributions, loss function, risk function, and minimax estimator. Bayes estimators. Non-randomised and randomised tests, critical function, MP tests, Neyman-Pearson lemma, UMP tests, monotone likelihood ratio, similar and unbiased tests, UMPU tests for single parameter likelihood ratio test and its asymptotic distribution. Confidence bounds and its relation with tests. Kolmogoroff's test for goodness of fit and its consistency, sign test and its optimality. Wilcoxon signed-ranks test and its consistency, Kolmogorov-Smirnov two-sample test, run test, Wilcoxon-Mann-

Whitney test and median test, their consistency and asymptotic normality. Wald's SPRT and its properties, OC and ASN functions for tests regarding parameters for Bernoulli, Poisson, normal and exponential distributions. Wald's fundamental identity.

#### 3. Linear Inference and Multivariate Analysis:

Linear statistical models', theory of least squares and analysis of variance, Gauss-Markoff theory, normal equations, least squares estimates and their precision, test of significance and interval estimates based on least squares theory in one-way, two-way and three-way classified data, regression analysis, linear regression, curvilinear regression and orthogonal polynomials, multiple regression, multiple and partial correlations, estimation of variance and covariance components, multivariate normal distribution, Mahalanobis-D2 and Hotelling's T2 statistics and their applications and properties, discriminant analysis, canonical correlations, principal component analysis.

#### 4. Sampling Theory and Design of Experiments:

An outline of fixed-population and super-population approaches, distinctive features of finite population sampling, probability sampling designs, simple random sampling with and without replacement, stratified random sampling, systematic sampling and its efficacy , cluster sampling, two-stage and multi-stage sampling, ratio and regression methods of estimation involving one or more auxiliary variables, two-phase sampling, probability proportional to size sampling with and without replacement, the Hansen-Hurwitz and the Horvitz-Thompson estimators, non-negative variance estimation with reference to the Horvitz-Thompson estimator, non-sampling errors. Fixed effects model (two-way classification) random and mixed effects models (two-way classification with equal observation per cell), CRD, RBD, LSD and their analyses, incomplete block designs, concepts of orthogonality and balance, BIBD, missing plot technique, factorial experiments and 2n and 32, confounding in factorial experiments, split-plot and simple lattice designs, transformation of data Duncan's multiple range test.

#### PAPER - II

#### 1. Industrial Statistics:

Process and product control, general theory of control charts, different types of control charts for variables and attributes, X, R, s, p, np and c charts, cumulative sum chart. Single, double, multiple and sequential sampling plans for attributes, OC, ASN, AOQ and ATI curves, concepts of producer's and consumer's risks, AQL, LTPD and AOQL, Sampling plans for variables, Use of Dodge-Roming tables. Concept of reliability, failure rate and reliability functions, reliability of series and parallel systems and other simple configurations, renewal density and renewal function, Failure models: exponential, Weibull, normal, lognormal. Problems in life testing, censored and truncated experiments for exponential models.

#### 2. Optimization Techniques:

Different types of models in Operations Research, their construction and general methods of solution, simulation and Monte-Carlo methods formulation of linear programming (LP) problem, simple LP model and its graphical solution, the simplex procedure, the two-phase method and the M-technique with artificial variables, the duality theory of LP and its economic interpretation, sensitivity analysis, transportation and assignment problems, rectangular games, two-person zero-sum games, methods of solution (graphical and algebraic).

Replacement of failing or deteriorating items, group and individual replacement policies, concept of scientific inventory management and analytical structure of inventory problems, simple models with deterministic and stochastic demand with and without lead time, storage models with particular reference to dam type. Homogeneous discrete-time Markov chains, transition probability matrix, classification of states and ergodic theorems, homogeneous continuous-time Markov chains, Poisson process, elements of queuing theory, M/M/1, M/M/K, G/M/1 and M/G/1 queues.

Solution of statistical problems on computers using well-known statistical software packages like SPSS.

#### 3. Quantitative Economics and Official Statistics:

Determination of trend, seasonal and cyclical components, Box-Jenkins method, tests for stationary series, ARIMA models and determination of orders of autoregressive and moving average components, forecasting. Commonly used index numbers-Laspeyre's, Paasche's and Fisher's ideal index numbers, chain-base index number, uses and limitations of index numbers, index number of wholesale prices, consumer prices, agricultural production and industrial production, test for index numbers - proportionality, time-reversal, factor-reversal and circular .

General linear model, ordinary least square and generalized least squares methods of estimation, problem of multicollinearity, consequences and solutions of multicollinearity, autocorrelation and its consequences, heteroscedasticity of disturbances and its testing, test for independence of disturbances, concept of structure and model for simultaneous equations, problem of identification-rank and order conditions of identifiability, two-stage least square method of estimation. Present official statistical system in India relating to population, agriculture, industrial production, trade and prices, methods of collection of official statistics, their reliability and limitations, principal publications containing such statistics, various official agencies responsible for data collection and their main functions.

#### 4. Demography and Psychometry:

Demographic data from census, registration, NSS other surveys, their limitations and uses, definition, construction and uses of vital rates and ratios, measures of fertility, reproduction rates, morbidity rate, standardized death rate, complete and abridged life tables, construction of life tables from vital statistics and census returns, uses of life tables, logistic and other population growth curves, fitting a logistic curve, population projection, stable population, quasi-stable population, techniques in estimation of demographic parameters, standard classification by cause of death, health surveys and use of hospital statistics. Methods of standardisation of scales and tests, Z-scores, standard scores, T-scores, percentile scores, intelligence quotient and its measurement and uses, validity and reliability of test scores and its determination, use of factor analysis and path analysis in psychometry.

### ZOOLOGY

#### PAPER - I

#### 1. Non-chordata and Chordata:

- (a) Classification and relationship of various phyla up to subclasses: Acoelomate and Coelomate, Protostomes and Deuterostomes, Bilateria and Radiata; Status of Protista, Parazoa, Onychophora and Hemichordata; Symmetry.
- (b) Protozoa: Locomotion, nutrition, reproduction, sex; General features

and life history of Paramaecium, Monocystis, Plasmodium and Leishmania.

- (c) Porifera: Skeleton, canal system and reproduction.
- (d) Cnidaria: Polymorphism, defensive structures and their mechanism; coral reefs and their formation; metagenesis; general features and life history of Obelia and Aurelia.
- (e) Platyhelminthes: Parasitic adaptation; general features and life history of Fasciola and Taenia and their pathogenic symptoms.
- (f) Nematelminthes: General features, life history, parasitic adaptation of Ascaris and Wuchereria.
- (g) Annelida: Coelom and metamerism; modes of life in polychaetes; general features and life history of Nereis, earthworm and leach.
- (h) Arthropoda: Larval forms and parasitism in Crustacea; vision and respiration in arthropods (Prawn, cockroach and scorpion); modification of mouth parts in insects (cockroach, mosquito, housefly, honey bee and butterfly); metamorphosis in insect and its hormonal regulation, social behaviour of Apis and termites.
- (i) Mollusca: Feeding, respiration, locomotion, general features and life history of Lamellidens, Pila and Sepia, torsion and detorsion in gastropods.
- (j) Echinodermata: Feeding, respiration, locomotion, larval forms, general features and life history of Asterias.
- (k) Protochordata: Origin of chordates; general features and life history of Branchiostoma and Herdmania.
- (l) Pisces: Respiration, locomotion and migration.
- (m) Amphibia: Origin of tetrapods, parental care, paedomorphosis.
- (n) Reptilia: Origin of reptiles, skull types, status of Sphenodon and crocodiles.
- (o) Aves: Origin of birds, flight adaptation, migration.
- (p) Mammalia: Origin of mammals, dentition, general features of egg laying mammals, pouched-mammals, aquatic mammals and primates, endocrine glands (pituitary, thyroid, parathyroid, adrenal, pancreas, gonads) and their interrelationships.
- (q) Comparative functional anatomy of various systems of vertebrates (integument and its derivatives, endoskeleton, locomotory organs, digestive system, respiratory system, circulatory system including heart and aortic arches, urino-geni-

tal system, brain and sense organs (eye and ear).

## 2. Ecology:

- (a) Biosphere: Concept of biosphere; biomes, Biogeochemical cycles, Human induced changes in atmosphere including green house effect, ecological succession, biomes and ecotones, community ecology.
- (b) Concept of ecosystem; structure and function of ecosystem, types of ecosystem, ecological succession, ecological adaptation.
- (c) Population; characteristics, population dynamics, population stabilization.
- (d) Biodiversity and diversity conservation of natural resources.
- (e) Wildlife of India.
- (f) Remote sensing for sustainable development.
- (g) Environmental biodegradation, pollution and its impact on biosphere and its prevention.

## 3. Ethology:

- (a) Behaviour: Sensory filtering, responsiveness, sign stimuli, learning and memory, instinct, habituation, conditioning, imprinting.
- (b) Role of hormones in drive; role of pheromones in alarm spreading; crypsis, predator detection, predator tactics, social hierarchies in primates, social organization in insects.
- (c) Orientation, navigation, homing, biological rhythms, biological clock, tidal, seasonal and circadian rhythms.
- (d) Methods of studying animal behaviour including sexual conflict, selfishness, kinship and altruism.

## 4. Economic Zoology:

- (a) Apiculture, sericulture, lac culture, carp culture, pearl culture, prawn culture, vermiculture.
- (b) Major infectious and communicable diseases (malaria, filaria, tuberculosis, cholera and AIDS) their vectors, pathogens and prevention.
- (c) Cattle and livestock diseases, their pathogen (helminthes) and vectors (ticks, mites, Tabanus, Stomoxys).
- (d) Pests of sugar cane (Pyrilla perpusiella) oil seed (Achaea janata) and rice (Sitophilus oryzae).
- (e) Transgenic animals.
- (f) Medical biotechnology, human genetic disease and genetic counselling, gene therapy.
- (g) Forensic biotechnology.

## 5. Biostatistics:

Designing of experiments; null hypothesis; correlation, regression, distribution and measure of central tendency, chi square, student-test,

F-test (one-way & two-way F-test).

## 6. Instrumentation Methods:

- (a) Spectrophotometer, phase contrast and fluorescence microscopy, radioactive tracer, ultra centrifuge, gel electrophoresis, PCR, ELISA, FISH and chromosome painting.
- (b) Electron microscopy (TEM, SEM).

## PAPER - II

### 1. Cell Biology:

- (a) Structure and function of cell and its organelles (nucleus, plasma membrane, mitochondria, Golgi bodies, endoplasmic reticulum, ribosomes, and lysosomes), cell division (mitosis and meiosis), mitotic spindle and mitotic apparatus, chromosome movements, chromosome type poltene and lambrush, organization of chromatin, heterochromatin, Cell cycle regulation.
- (b) Nucleic acid topology, DNA motif, DNA replication, transcription, RNA processing, translation, protein foldings and transport.

### 2. Genetics:

- (a) Modern concept of gene, split gene, genetic regulation, genetic code.
- (b) Sex chromosomes and their evolution, sex determination in Drosophila and man.
- (c) Mendel's laws of inheritance, recombination, linkage, multiple alleles, genetics of blood groups, pedigree analysis, hereditary diseases in man.
- (d) Mutations and mutagenesis.
- (e) Recombinant DNA technology; plasmid, cosmid, artificial chromosomes as vectors, transgenic, DNA cloning and whole animal cloning (principles and methods).
- (f) Gene regulation and expression in prokaryotes and eukaryotes.
- (g) Signal molecules, cell death, defects in signaling pathway and consequences.
- (h) RFLP, RAPD and AFLP and application of RFLP in DNA finger printing, ribozyme technologies, human genome project, genomics and proteomics.

### 3. Evolution:

- (a) Theories of origin of life.
- (b) Theories of evolution; Natural selection, role of mutations in evolution, evolutionary patterns, molecular drive, mimicry, variation, isolation and speciation.
- (c) Evolution of horse, elephant and man using fossil data.
- (d) Hardy-Weinberg Law.
- (e) Continental drift and distribution of animals.

### 4. Systematics:

Zoological nomenclature, interna-

tional code, cladistics, molecular taxonomy and biodiversity.

## 5. Biochemistry:

- (a) Structure and role of carbohydrates, fats, fatty acids and cholesterol, proteins and amino-acids, nucleic acids. Bioenergetics.
- (b) Glycolysis and Krebs cycle, oxidation and reduction, oxidative phosphorylation, energy conservation and release, ATP cycle, cyclic AMP – its structure and role.
- (c) Hormone classification (steroid and peptide hormones), biosynthesis and functions.
- (d) Enzymes: types and mechanisms of action.
- (e) Vitamins and co-enzymes
- (f) Immunoglobulin and immunity.

## 6. Physiology (with special reference to mammals):

- (a) Composition and constituents of blood; blood groups and Rh factor in man, factors and mechanism of coagulation, iron metabolism, acid-base balance, thermo-regulation, anticoagulants.
- (b) Haemoglobin: Composition, types and role in transport of oxygen and carbon dioxide.
- (c) Digestion and absorption: Role of salivary glands, liver, pancreas and intestinal glands.
- (d) Excretion: nephron and regulation of urine formation; osmo-regulation and excretory product
- (e) Muscles: Types, mechanism of contraction of skeletal muscles, effects of exercise on muscles.
- (f) Neuron: nerve impulse – its conduction and synaptic transmission, neurotransmitters.
- (g) Vision, hearing and olfaction in man.
- (h) Physiology of reproduction, puberty and menopause in human.

## 7. Developmental Biology:

- (a) Gametogenesis; spermatogenesis, composition of semen, in vitro and in vivo capacitation of mammalian sperm, Oogenesis, totipotency; fertilization, morphogenesis and morphogen, blastogenesis, establishment of body axes formation, fate map, gastrulation in frog and chick; genes in development in chick, homeotic genes, development of eye and heart, placenta in mammals.
- (b) Cell lineage, cell-to cell interaction, Genetic and induced teratogenesis, role of thyroxine in control of metamorphosis in amphibia, paedogenesis and neoteny, cell death, aging.
- (c) Developmental genes in man, in vitro fertilization and embryo transfer, cloning.
- (d) Stem cells: Sources, types and their use in human welfare.
- (e) Biogenetic law.

## Appendix-II

### Instructions to the Candidates for filling online applications

Candidates are required to apply Online using the website [www.upsconline.nic.in](http://www.upsconline.nic.in).

Salient features of the system of Online Application Form are given hereunder :

- Detailed instructions for filling up Online applications are available on the above mentioned website.
- Candidates will be required to complete the Online Application Form containing two stages viz. Part-I and Part-II as per the instructions available in the above mentioned site through drop down menus.
- The candidates are required to pay a fee of Rs.100/- Rupees One Hundred only) [excepting SC/ST/ Female/Physically Handicapped candidates who are exempted from payment of fee] either by depositing the money in any branch of SBI by cash, or by using net banking facility of State Bank of India/State Bank of Bikaner & Jaipur/State Bank of Hyderabad/State Bank of Mysore/ State Bank of Patiala/State Bank of Travancore or by using any Visa/Master Credit/ Debit Card.
- Before start filling up of Online Application, a candidate must have his/her photograph and signature duly scanned in the **jpg** format in such a manner that each file should not exceed 40 KB and must not be less than 3 KB in size for the photograph and 1 KB for the signature.

- The Online applications(Part I and II) can be filled from **5th March, 2013 to 4th April, 2013 till 11.59 p.m.**, after which link will be disabled.
- Applicants should avoid submitting multiple applications. However, if due to any unavoidable circumstances, any applicant submits multiple applications then he/she must ensure that the applications with higher RID is complete in all respects.
- In case of multiple applications, the applications with higher RID shall be entertained by the Commission and fee paid against one RID shall not be adjusted against any other RID.
- The applicants must ensure that while filling their Application Form, they are providing their valid and active E-Mail IDs as the Commission may use electronic mode of communication while contacting them at different stages of examination process.
- The applicants are advised to check their emails at regular intervals and ensure that the email address ending with @ nic.in are directed to their inbox folder and not to the SPAM folder or any other folder.
- **Candidates are strongly advised to apply online well in time without waiting for the last date for submission of Online Applications.**

## APPENDIX-III

## Special Instructions to Candidates for objective type tests

**1. Articles permitted inside Examination Hall**

Clip board or hard board (on which nothing is written), a good quality black ball pen for making responses on the Answer Sheet. Answer Sheet and sheet for rough work will be supplied by the Invigilator.

**2. Articles not permitted inside Examination Hall**

Do not bring into the Examination Hall any article other than those specified above, e.g., books, notes, loose sheets, electronic or any other type of calculators, mathematical and drawing instruments, Log Tables, stencils of maps, slide rules, Test Booklets and rough sheets pertaining to earlier session(s), etc.

**Mobiles phones, pagers or any other communication devices are not allowed inside the premises where the examination is being conducted. Any infringement of these instructions shall entail disciplinary action including ban from future examinations.**

**Candidates are advised in their own interest not to bring any of the banned items including mobile phones/pagers to the venue of the examination, as arrangements for safekeeping cannot be assured. Candidates are advised not to bring any valuable/costly items to the Examination Halls, as safe keeping of the same cannot be assured. Commission will not be responsible for any loss in this regard.**

**Penalty for wrong Answers****3. THERE WILL BE PENALTY (NEGATIVE MARKING) FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.**

(i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one third (0.33)** of the marks assigned to that question will be deducted as penalty.

(ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above for that question.

(iii) If a question is left blank i.e. no answer is given by the candidate, there will be **no penalty** for that question.

**4. Unfair means strictly prohibited**

No candidate shall copy from the papers of any other candidate nor permit his papers to be copied nor give nor attempt to give nor obtain nor attempt to obtain irregular assistance of any description.

**5. Conduct in Examination Hall**

No candidate should misbehave in any manner or create disorderly scene in the Examination Hall or harass the staff employed by the Commission for the conduct of the examination. Any such misconduct will be severely penalised.

**6. Answer Sheet particulars**

(i) Write in black ball pen your Centre and subject followed by test booklet series (in bracket), subject code and roll number at the appropriate space provided on the answer sheet at the top. Also encode your booklet series (A, B, C or D, as the case may be), subject code and roll number in the circles provided for the purpose in the answer sheet. The guidelines for writing the above particulars and for encoding the above particulars are given in Annexure. In case the booklet series is not printed on the test booklet or answer sheet is un-numbered, please report immediately to the Invigilator and get the test booklet/answer sheet replaced.

(ii) All corrections and changes in writing the roll number must be initialed by the candidates as well as by the Invigilator and countersigned by the Supervisor.

(iii) Immediately after commencement of the examination please check that the test booklet supplied to you does not have any unprinted or torn or missing pages or items etc. If so, get it replaced by a complete test booklet of the same series and subject.

7. Do not write your name or anything other than the specific items of information asked for, on the answer sheet/test booklet/sheet for rough work.

8. Do not fold or mutilate or damage or put any extraneous marking in the Answer Sheet. Do not write anything on the reverse of the answer sheet.

9. Since the answer sheets will be evaluated on computerised machines, candidates should exercise due care in handling and filling up the answer sheets. **They should use black ball pen only to darken the circles. For writing in boxes also, they should use black ball pen. Since the entries made by the candidates by darkening the circles will be taken into account while evaluating the answer sheets on computerised machines, they should make these entries very carefully and accurately.**

**10. Method of marking answers**

In the "OBJECTIVE TYPE" of examination, you do not write the answers. For each question (hereinafter referred to as "Item") several suggested answers (hereinafter referred to as "Responses") are given. You have to choose one response to each item.

The question paper will be in the Form of TEST BOOKLET. The booklet will contain item bearing numbers 1, 2, 3 ..... etc. Under each item, Responses marked (a), (b), (c), (d) will be given. Your task will be to choose the correct response. If you think there is more than one correct response, then choose what you consider the best response.

In any case, for each item you are to select only one response. If you select more than one response, your response will be considered wrong. In the Answer Sheet, Serial Nos. from 1 to 160 are printed. Against each numbers, there are circles marked (a), (b), (c) and (d). After you have read each item in the Test Booklet and decided which one of the given responses is correct or the best, **you have to mark your response by**

**completely blackening with black ball pen to indicate your response.**

For example, if the correct answer to item 1 is (b), then the circle containing the letter (b) is to be completely blackened with black ball pen as shown below :-

**Example : (a) ● (c) (d)**

**11. Entries in Scannable Attendance List**

Candidates are required to fill in the relevant particulars with black ball pen only against their columns in the Scannable Attendance List, as given below:-

i) Blacken the circle [P] under the column [Present/Absent]

ii) Blacken the relevant circle for Test Booklet Series

iii) Write Test Booklet Serial No.

(iv) Write the Answer Sheet Serial No. and also blacken the corresponding circles below.

v) Append signature in the relevant column

12. Please read and abide by the instructions on the cover of Test Booklet. If any candidate indulges in disorderly or improper conduct, he will render himself liable for disciplinary action and/or imposition of a penalty as the Commission may deem fit.

**ANNEXURE****How to fill in the Answer Sheet of objective type tests in the Examination Hall**

Please follow these instructions very carefully. You may note that since the answer sheets are to be evaluated on machine, any violation of these instructions may result in reduction of your score for which you would yourself be responsible.

Before you mark your responses on the Answer Sheet, you will have to fill in various particulars in it.

As soon as the candidate receives the Answer Sheet, he should check that it is numbered at the bottom. If it is found un-numbered he should at once get it replaced by a numbered one.

You will see from the Answer Sheet that you will have to fill in the top line, which reads thus :

Centre \_\_\_\_\_ Subject \_\_\_\_\_ S.Code \_\_\_\_\_ Roll Number \_\_\_\_\_

If you are, say, appearing for the examination in Delhi Centre for the General Ability Test Papers\* and your Roll No. is 081276, and your test Booklet series is 'A' you should fill in thus, using black ball pen.

Centre Delhi subject S.Code 01 Roll Number 081276

Mathematics (A)

You should write with black ball pen the name of the centre and subject in English or Hindi.

The test Booklet Series is incicated by Alphabets A, B, C or D at the top right hand corner of the Booklet.

Write your Roll Numbers exactly as it is in your e-Admission Certificate with black ball pen in the boxes provided for this purpose. Do not omit any zero(s) which may be there.

The next step is to find out the appropriate subject code from the Time Table. Now encode the Test Booklet Series, Subject Code and the Roll Number in the circles provided for this purpose. Do the encoding with black ball pen. The name of the Centre need not be encoded.

Writing and encoding of Test Booklet Series is to be done after receiving the Test Booklet and confirming the Booklet Series from the same.

For Mathematics \* subject paper of 'A' Test Booklet Series you have to encode the subject code, which is 01. Do it thus:

Booklet Series (A)	Subject	0	1
●	○	●	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○

All that is required is to blacken completely the circle marked 'A' below the Booklet Series and below the subject code blacken completely the Circles for "0" (in the first vertical column) and "1" (in the second vertical column). You should then encode the Roll No. 081276.

Do it thus similarly :

**Important :** Please ensure that you have carefully encoded your subject, Test Booklet series and Roll Number.

\*This is just illustrative and may not be relevant to your Examination.

Roll Numbers

0 8 1 2 7 6

● ○ ○ ○ ○ ○

○ ○ ● ○ ○ ○

○ ○ ○ ● ○ ○

○ ○ ○ ○ ○ ○

○ ○ ○ ○ ○ ○

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○ ○ ○ ○ ○ ○

○ ○ ○ ○ ○ ○

**Government of India**  
**North Eastern Council Secretariat**  
**Ministry of Development of North Eastern Region**  
**Nongrim Hills :: Shillong - 793 003 - 12**

**No. NEC/ADM/19/95 Vol.I**

It is proposed to fill up 8 (eight) posts of Stenographer Gr.II by transfer on deputation basis in the Pay Band of PB-2 Rs. 9,300-34,800/- + Grade Pay of Rs. 4,600/-. Period of deputation will be one year initially which may be extended upto 3 (three) years. The application must be forwarded along-with complete bio-data in the prescribed proforma (Annexure-A) so as to reach the undersigned **within 60 days** from the date of publication of this Advt. in the Employment News.

**1. Eligibility criteria:** Officers under the Central Government or State Government or Union Territories or Statutory organizations holding analogous post on regular basis in the parent cadre or Department or with 8 (eight) years regular service in the Pay Band PB-1 Rs. 5,200-20,200/- + Grade Pay of Rs. 2,400/- or equivalent.

(Period of deputation including period of deputation in another ex-cadre post held immediately preceding this appointment in the same or some other organization/Department of the Central Government, shall ordinarily not exceed three years. The maximum age limit for appointment by deputation shall be not exceeding 56 years as on the closing of receipt of application).

**2. Certification to be given by the Office/Department while forwarding the application:**

- (a) that the particulars given by the applicant are true and have been verified from the office records;  
 (b) that the applicant, if selected, will be relieved immediately;  
 (c) that up to date CR dossier for the last five years are enclosed;

(d) that no vigilance case is pending or contemplated against him/her and there is nothing against the candidate which makes him/her ineligible for consideration for appointment to the post applied for; and

(e) that no major/minor penalty is in force or currency against the official.

3. The pay and allowances of the selected persons will be regulated in accordance with the relevant rules and Government of India's decisions in force from time to time.

(David Lalmaisawma)

Director (Admn.)

(ANNEXURE - A)

**PROFORMA**

1. Name in full (in block letters) :
2. Date of birth :
3. Educational qualifications :
4. Name of the post applied for :
5. (a) Present post held with date of appointment on regular basis. :  
 (b) Full address of Employer in Parent Department. :  
 (c) Present basic pay with scale of pay (including total emoluments) :
6. Experience :  
 (a) Establishment & Administration :  
 (b) Accounts matter :  
 (c) Other experience :
7. Whether SC/ST/OBC/General :
8. Present place of posting :
9. Hometown address :

10. Contact Details .

Address:

Ph# (O)  
(R)  
(M)

**Signature of Applicant**  
**Signature and Seal of the Sponsoring**  
**Authority/Head of Deptt./**  
**Appointing Authority**

**N.B.- Proofs/attested copies of documents in support of Sl. Nos. 2, 3 and 7 must be provided along with the filled in proforma.**

**VIGILANCE CLEARANCE CERTIFICATE**

Certified that no vigilance case is pending or contemplated against Shri/Smti \_\_\_\_\_.

**Signature:**  
**Designation of :**  
**Competent authority**

**MAJOR/MINOR PENALTIES REPORT**

Certified that there is no major or minor penalties imposed on Shri/ Smti \_\_\_\_\_ during last 10 years.

**Signature :**  
**Designation of :**  
**Competent Authority.**

**INTEGRITY CERTIFICATE**

Service particulars of Shri/Smti \_\_\_\_\_ have been carefully scrutinized and it is certified that there is no doubt of his/her integrity.

**Signature:**  
**Designation of :**  
**competent authority**

EN 50/43

**Defence ...**

Continued from page 01

held by the armed forces is in a dismal state and the state defence industries are in no position to correct the situation. The only way to equip the defence forces is to privatise the state defence units, bring in the private sector as tier-1 supplier, limit DRDO to developing critical technologies only, encourage collaboration and joint ventures between Indian and western defence industries with minimum 49 per cent FDI. In case of sunrise defence technologies, permit 100 per cent FDI. This will, in the next decade, create a large and modern defence industrial complex in India that will not only equip the Indian armed forces but also earn revenues for the state through exports. Also, there will be a huge spin off to the civil industrial base.

It is unfortunate and demoralising for a soldier to not even possess a reliable assault rifle to tackle the insurgent or terrorist equipped with the latest weapons. Therefore, at the initial stage by-passing the long-drawn acquisition process, it is imperative that the basic requirements are met with through quick imports. To save costs, an assault rifle should be selected to meet the requirements of defence services as well as para-military forces. In addition, transfer of technology to a designated private sector unit in India should be done simultaneously.

On the other hand, there is a dire need to eliminate cumbersome red-tape and indecisiveness. The tender in which six in-flight refueling aircraft were selected by the IAF, was cancelled due to a clerical mindset of the MoD. The irony is that in the tender re-floated, the same company has now been identified as the preferred bidder. This reflects unimaginative application of mind by the MoD causing huge delay. In view of the prevailing threat, timely provisioning of the required hardware for the IAF ought to have priority over procedural imperatives. Similarly, if companies continue to be blacklisted without cleaning up our own stables, it can only lead to disaster. For example, if five companies in the world make 155mm artillery gun and three

are blacklisted, it will kill competition and deprive the nation of getting the best value for money. The rules of engagement should be fair and consistent with international norms for India to succeed in creating its own modern defence industrial complex. With the rapid march of defence technologies it is not possible today to be entirely self-sufficient in the production of the complete spectrum of weapons. Therefore, India also should become a part of global supply chain of defence equipment by being one of the important hubs of research and development of a variety of main and sub-assemblies.

Without pausing for the mental lethargy of New Delhi, warfare technology has rapidly moved to pilotless or remote controlled vehicles and weapon systems on sea, land and in the air. One can practically look inside the enemy's house sitting in New Delhi and neutralize the emerging threat by firing a missile with the help of a remote controlled pilotless drone. We are nowhere near use of such magnificent technologies in spite of the favorable opportunities that exist in the new geopolitical environment. Technological innovation earlier took a decade to develop. Warfare technology now can be out of date within a year. It is a distinct possibility that with the rapid pace of technological advances in warfare, by the time 126 MMRCA deal is finalized, much of the technology offered by OEMs may be out of date.

Indian Armed Forces cannot be prepared adequately to meet the looming threats unless MoD brings in transparency, time bound implementation of projects, privatizes the money guzzling Defence PSUs, encourage private sector to form joint-ventures with the western defence industries by raising the level of FDI to minimum of 49%, and link the defence acquisition process to fulfill the aims of national security instead of clerical procedures.

**(The author is Editor, Indian Defence Review. Email-[bharat.verma@indiandefencereview.com](mailto:bharat.verma@indiandefencereview.com))**

**(The views expressed in the above article are that of the author and do not necessarily represent the opinion of Employment News)**

**State of ...**

Continued from page 01

There is always an implicit (not explicit) assumption about crude prices and exchange rates. That can be ignored. The overall growth point apart, there is an optimistic 19.1% growth (over RE of 2012-13) of tax revenue (net to Centre). Without a growth recovery, this may not happen. There is an even more optimistic non-tax revenue receipts figure of Rs 172,252 crores in 2013-14. That optimism was misplaced in 2012-13. Will 2013-14 be different? Will one be able to contain Plan and non-Plan expenditure, or is one depending on supplementary grants? For example, will subsidies decline to 2% of GDP in 2013-14, compared to 2.5% in 2012-13? Stated differently, impressive expenditure increases in the budget are based on RE, not BE of 2012-13. Expenditure is expected to be contained, like 2012-13. But revenue is expected to increase, unlike 2012-13. The budget has a borrowing figure of Rs. 542,499 crores. RE borrowing was Rs 520,925 crores in 2012-13, despite expenditure pruning. Does this mean government is sitting on unspent cash that is being rolled over into 2013-14? Therefore, while the budget should be praised for controlling the urge to splurge, there should be legitimate skepticism about the numbers.

The budget tells us that all flagship programmes will be "fully and adequately funded". A flagship conjures up an image of an admiral controlling a fleet. And yes, we have a fleet of CSSs with doubtful efficacy. The budget speech states, "Government is concerned about the proliferation of Centrally Sponsored Schemes (CSS) and Additional Central Assistance (ACA) schemes. They were 173 in number at the end of the 11th Plan. I am glad to announce that the schemes will be restructured into 70 schemes." The B.K. Chaturvedi Committee wanted pruning to 59 and mentioned restructuring with 17 flagship schemes. Had the budget's expenditure provisions concentrated only on these, one would have understood, though even there, all social sectors are State and local body subjects. Here are some examples. Para 71 of the budget speech states, "Micro, small and medium enterprises (MSME) have a large share of jobs, production and exports. Too many of them do not grow because of the fear of losing the benefits associated with staying small or medium. To encourage them to grow, I propose that the

benefits or preferences enjoyed by them will stay with them for up to three years after they grow out of the category in which they obtained the benefit." They don't grow because of benefits and then one goes ahead and gives them more benefits. Why does one need a Women's Bank as a public sector bank? Para 90 of the budget speech states, "All towns of India with a population of 10,000 or more will have an office of LIC and an office of at least one public sector general insurance company. I propose to achieve this goal by 31.3.2014." How can this be FM's goal? Surely this is for LIC and general insurance companies to figure out. Should one try to differentiate between FII and FDI? Sure, women, youth and poor are important. Safety for women is important. But is a Nirbhaya Fund the answer? In all of these, one does not detect a real attempt to rationalize expenditure. Ditto on the tax side and para 145 is an example. "Transactions in immovable properties are usually undervalued and underreported. One-half of the transactions do not carry the PAN of the parties concerned. With a view to improve the reporting of such transactions and the taxation of capital gains, I propose to apply TDS at the rate of one percent on the value of the transfer of immovable property where the consideration exceeds `50 lakhs." Why is there under-valuation? Other than tax evasion, the reason is high stamp duties and compliance costs. This is now compounded by imposing a TDS that will incentivize under-reporting. Or take para 181. "At present, service tax does not apply to air conditioned restaurants that do not serve liquor. The distinction is artificial, and I propose to levy service tax on all air conditioned restaurants." Isn't the distinction between AC and non-AC restaurants also artificial? What if a restaurant has AC and non-AC sections? There are several more instances of tinkering, both on customs and excise. If one wishes to clean up, reduce discretion and standardize, with GST in the offing, all excise and service tax should be standardized at 12%. Instead, there is a lot of tinkering and absence of rationalization again.

While the budget for 2013-14 has controlled the obvious urge to increase expenditure, there should be skepticism on deficit numbers, expenditure and the tax proposals.

**(The author is Professor, Centre for Policy Research, Delhi. Email-[bdebroy@gmail.com](mailto:bdebroy@gmail.com))**

**Ability Brings Employment****NHFDC : Empowering the Disabled**

—Harsh Bhal

NHFDC has a dream for creating self-employment opportunities, facilitating skill upgradation and promotion of higher studies for persons with disabilities in the country

National Handicapped Finance and Development Corporation (NHFDC) under Department of Disability Affairs, Govt of India is providing concessional credit to Persons with Disability (PwDs) for starting self-employment activities and also for pursuing professional/technical education. NHFDC also provides 100% grant for skill training by operating through it's State Channelizing Agencies or through reputed training institutions. A stipend of Rs. 1,000/- per trainee per month is provided during the entire training duration. The interest rates under our Corporation's loan schemes are as low as 3.5% p.a in case of women PwDs and the highest rate being 8% p.a upto Rs 25.00 lac loan. NHFDC is also implementing two scholarship schemes for Technical and Professional education. 1500 Scholarships are provided annually to PwD students pursuing higher education. The Scholarship amount is Rs. 50,000/- on an average depending upon the course fee, hostel fee, study material and one time assistive devices. There are nearly 2.19 crores of Persons with Disabilities in the Country and hence services of NHFDC may be used for making them self employed, upgrading their skills and promoting higher studies in India and abroad.

The vision of NHFDC is to empower the disabled persons in order to break away from the dependence on others, and from the depressed economic and social conditions by engaging themselves in productive ventures and thus help them to move up the social and economic ladder with dignity and pride. The main activities of this Apex Corporation for the benefit of Persons with Disabilities may be summed up as :-

NHFDC is extending concessional credit for Persons with Disabilities all over India through its agencies in the States (State Channelising Agencies). The eligibility criteria, the schemes and the other details can be seen in NHFDC's website ([www.nhfdc.nic.in](http://www.nhfdc.nic.in)). The current year's target of disbursement of concessional loan for self financing project to Persons with Disabilities in the country is to the tune of Rs. 60 crore to cover about 10,900 PwDs. The activities for which the loan is made available are STD/PCO Booth, mobile repair, sewing machine, beauty parlour, kirana shop, pan shop, general store, purchase of commercial vehicle etc.etc. as per

the choice/convenience of the Persons with Disability. In fact, loan is made available for any activity which can generate income for the beneficiary.

**EVERY PwD CAN AVAIL THE BENEFIT OF CONCESSIONAL CREDIT (INTEREST RATE 4% TO 8%)**

PwDs should approach our Agency through a representative in the District. Conditions for eligibility are;

(1) Disability percentage should be 40 and above.

(2) Age should be between 18 years to 60 years.

For further information visit our website ([www.nhfdc.nic.in](http://www.nhfdc.nic.in)) to obtain details of the agency in the state in which you reside.

NHFDC extends concessional credit to Persons with Disabilities for self employment ventures upto Rs. 25 lacs at following rates :

Rate of Interest Per Annum		
Project Cost	Female	Male
Upto Rs. 50,000/-	4%	5%
Above Rs. 50000/- and upto Rs. 5.00 lac	5%	6%
Above Rs. 5.00 lac	7%	8%
For Education loan (upto 10 lac for study in India & upto 20 lac for study abroad)	3.5%	4%

NHFDC is also facilitating the training of PwDs through it's State Channelising Agencies wherein the total cost of the training is borne by the Corporation. In addition, NHFDC is also extending the support of Rs. 1,000/- per trainee per month as stipend during entire training duration. The current year's target include training of 1340 PwDs in the country. At present, the focus is to train PwDs through Vocational Rehabilitation Centres (VRCs) for the PwDs functioning under Ministry of Labour, Government of India. There are 20 VRCs in the country exclusively catering to the training needs of the Persons with Disabilities.

NHFDC has also been implementing two scholarship schemes for pursuing higher/technical/professional courses in the country. Under these schemes, 1500 students are provided scholarships per year. The scholarship amount reimburses course fee, hostel/ maintenance charges, books & stationery expenses and one time assistive devices for the PwD students. The amount per student per year is Rs. 50,000/- on an average.

The details of these scholarships may be seen on NHFDC website ([www.nhfdc.nic.in](http://www.nhfdc.nic.in))

**SCHOLARSHIP SCHEMES****Trust Fund**

\*1000 Scholarships @ Rs.50,000/year are awarded every year to eligible students with disabilities for degree and post graduate level professional and technical courses from recognized institutions in India.

\* 30% scholarships are reserved for girls.

\*Applicant has to apply on line ([www.nhfdc.nic.in](http://www.nhfdc.nic.in)) at any time in academic year for scholarship under this scheme. \*Scholarships will be awarded quarterly basis for the applications received in preceding quarter.

**National Fund**

\*500 Scholarships @ Rs.12,000/year are awarded every year to eligible students with disabilities for pursuing higher academic/professional or technical qualification.

\*50% scholarships are reserved for girls.

\*Applicant has to apply online ([www.nhfdc.nic.in](http://www.nhfdc.nic.in)) for scholarship and scholarship shall be awarded once in a academic year under this scheme.

The NHFDC is also extending education loan for all type of higher education, professional and technical education @ 3.5% p.a. (in case of women students) and @ 4% p.a. for male students. It may be seen that these are lowest possible rates when compared to market rates. These rates are further subsidized by the scheme of Ministry of HRD, Govt. of India for students, wherever permissible.

In addition to above, Govt. has proposed a Credit Guarantee Fund with a corpus of Rs. 5000 crores. The fund will cover education loan upto Rs. 7.5 lacs without any

Young Professionals with disabilities. Under this scheme, Doctor, Engineer, Chartered Accountant, Cost Accountant, Company Secretary, Architect, Lawyer or anybody (PwDs) who has done any professional/technical course may apply for loan upto Rs. 25 lacs for setting up his industry/firm/office etc. This loan is also available at concessional rate ranging from 4% to 8%.

Last year NHFDC took initiative for expansion of its activities in the interest of PwDs. It included creating additional channelizing agencies like Regional Rural Banks (RRBs) in the country. So far, we have covered all Regional Rural Banks in Uttar Pradesh, Uttarakhand, Haryana & Gujarat. Efforts are on to cover RRBs in West Bengal, Odisha, Andhra Pradesh, Madhya Pradesh, Maharashtra, Meghalaya & Assam. These Regional Rural Banks have concentration in the rural areas and therefore are most suitable to provide loan for self employment to the Persons with Disabilities in rural India. Further, the concessional credit through RRBs at NHFDC rates are collateral free i.e., the beneficiary is not burdened for providing guarantee or arranging security etc. In the case of RRBs, the guarantee is provided by Credit Guarantee Trust Fund of Govt. of India.

Though we are a small corporation with authorized capital to the tune of Rs. 400 crores, we are fully alive to our responsibilities and with the support of Department of Disability Affairs, we would be able to assist each PwD students whosoever wishes to stand on his feet. We are committed to make each Person with disability self dependent and our motto is "Empowering the Disabled".

**NHFDC - A catalyst for training of Persons with Disabilities****Through:**

- All reputed/state level training institutes
- Vocational Rehabilitation Centres run by Ministry of Labour, Govt. of India.
- National Institutes for PwDs like NIVH, NIHH, NIOH, NIRTAR, IPH, NIMH under Ministry of Social Justice & Empowerment, Govt. of India

**For:**

- All modular employable skills approved by Govt. of India i.e. Carpentry, Machine winding, Apparel designing, Mobile repairing etc. etc. (available on the website of Ministry of Labour, Govt. of India)

**And provides for**

- All recurring training cost, study material and tool kit.
- Stipend of Rs. 1,000 per month per student for the entire training duration.

collateral security and third party guarantee. Recently NHFDC has also included concessional credit for assistive devices for the students with Disabilities. This will greatly enhance the capability and employability of the Persons with Disabilities in Government as well as in private sector.

The Corporation has also come out with a scheme especially to cater the need of

**Any Person with Disability is welcome to approach National Handicapped Finance and Development Corporation (NHFDC), Red Cross Bhawan, Sector-12, Faridabad-121007 or contact: at 0129 - 2226910, 2287512, 2287513 Fax no. 0129 - 2222339/2284371, E-mail - [nhfdc97@gmail.com](mailto:nhfdc97@gmail.com)**

*(The author is Chairman-cum-Managing Director, NHFDC)*

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**From Jaldip Vala to Employment News**

Dear Sir/Madam

I am Jaldip Vala, from Gujarat. I have completed MCA from DDU, Nadiad, Gujarat.

I love the thing you initiate, the column "Ability Brings Employment" and I read the passage in this section that all organizations starts taking skilled disabled persons as an employee, but the actual scenario is totally different. I have cleared Specialist Officer Exam but at last I am not selected for the reason of "Disability" and this is not first time, I lost my 3 chances of govt. job for the sake of "Disability" issue, I am 75% disabled and I can walk through WALKER.

There is only a label everywhere that they supports personal with disability but actually they never do such kind of noble task. I want to use my knowledge to serve the country but as I have the curse of "Disability" I cant do that. Thanks again for this column.

The above column is a small initiative by EN for highlighting various issues relating to this section of the society. Things have changed for better if not completely but at least are moving in that direction. Everybody's support is required. *We are happy to inform that shri Jaldip Vala is currently working as an Assistant Professor in Smt. K.B Parekh College of Computer Science, Mahuva.*