CIVIL SERVICES EXAMINATION, 2014

(Commission’s website-http://upsc.gov.in)

EXAMINATION NOTICE NO. 09/2014-CSP

DATE: 31.05.2014

UNION PUBLIC SERVICE COMMISSION

F. No. 1/5/2013-EL(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 Aug., 2014 in accordance with the Rules published by the Department of Personnel & Training in the Gazette of India Extraordinary dated 31st May, 2014.

1. Indian Administrative Service.
2. Indian Foreign Service.
3. Indian Police Service.
4. Indian P & T Accounts & Finance Service, Group ‘A’.
5. Indian Audit and Accounts Service, Group ‘A’.
6. Indian Revenue Service (Customs and Central Excise), Group ‘A’.
8. Indian Revenue Service (I.T.), Group ‘A’.
10. Indian Postal Service, Group ‘A’.
11. Indian Civil Accounts Service, Group ‘A’.
17. Indian Information Service (Junior Grade), Group ‘A’.
20. Armed Forces Headquarters Civil Service, Group ‘B’ (Section Officer’s Grade).
23. Pondicherry Civil Service, Group ‘B’.

A list of Services identified suitable for physical Disability Category along with the Physical Requirements and Functional Classifications.

1. Indian Administrative Service
   - Category(ies) for which advertised: Locomotor disability, Visual impairment, Hearing impairment
   - Functional Classification: BA, OL, OA, BT, MW, BA, BLOA
   - Physical requirements: S, ST, W, SE, H, RW, C

2. Indian Foreign Service
   - Category(ies) for which advertised: Locomotor disability, Visual impairment, Hearing impairment
   - Functional Classification: OL, OAL
   - Physical requirements: S, ST, W, C, MF, SE

3. Indian Revenue Service
   - Category(ies) for which advertised: Locomotor disability, Visual impairment, Hearing impairment
   - Functional Classification: OL, OA, OL, BA, MW, BA, BLOA
   - Physical requirements: S, ST, W, MW, BA, H, SE, H, RW, C

4. Indian P & T Accounts & Finance Service
   - Category(ies) for which advertised: Locomotor disability, Visual impairment, Hearing impairment
   - Functional Classification: OL, OA, OL, BA, MW, BA, BLOA
   - Physical requirements: S, ST, W, MW, BA, H, SE, H, RW, C

5. Indian Audit & Accounts Service
   - Category(ies) for which advertised: Locomotor disability, Visual impairment, Hearing impairment
   - Functional Classification: OL, OA, BA, MW, BA, BLOA
   - Physical requirements: S, ST, W, MW, BA, H, SE, H, RW, C

6. Indian Defence Accounts Service
   - Category(ies) for which advertised: Locomotor disability, Visual impairment, Hearing impairment
   - Functional Classification: OL, OA, BA, MW, BA, BLOA
   - Physical requirements: S, ST, W, MW, BA, H, SE, H, RW, C

7. Indian Revenue Service (I.T.), Group ‘A’
   - Category(ies) for which advertised: Locomotor disability, Visual impairment, Hearing impairment
   - Functional Classification: OL, OA, BA, MW, BA, BLOA
   - Physical requirements: S, ST, W, MW, BA, H, SE, H, RW, C

8. Indian Ordnance Factories Service, Group ‘A’
   - Category(ies) for which advertised: Locomotor disability, Visual impairment, Hearing impairment
   - Functional Classification: OL, OA, BA, MW, BA, BLOA
   - Physical requirements: S, ST, W, MW, BA, H, SE, H, RW, C

9. Indian Audit & Accounts Service, Group ‘A’
   - Category(ies) for which advertised: Locomotor disability, Visual impairment, Hearing impairment
   - Functional Classification: OL, OA, BA, MW, BA, BLOA
   - Physical requirements: S, ST, W, MW, BA, H, SE, H, RW, C

10. Indian Defence Accounts Service, Group ‘A’
    - Category(ies) for which advertised: Locomotor disability, Visual impairment, Hearing impairment
    - Functional Classification: OL, OA, BA, MW, BA, BLOA
    - Physical requirements: S, ST, W, MW, BA, H, SE, H, RW, C

11. Indian Railway Personnel Service, Group ‘A’
    - Category(ies) for which advertised: Locomotor disability, Visual impairment, Hearing impairment
    - Functional Classification: OL, OA, BA, MW, BA, BLOA
    - Physical requirements: S, ST, W, MW, BA, H, SE, H, RW, C

IMPORTANT

1. CANDIDATES TO ENSURE THEIR ELIGIBILITY FOR THE EXAMINATION:
   - Candidates applying for the examination should ensure that they fulfill the 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.
   - More 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.upsconline.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-III.

3. LAST DATE FOR RECEIPT OF APPLICATIONS:
   - The online Applications can be filled up to 30th June, 2014 till 11.59 PM after which the link will be disabled.

4. The eligible candidate 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, candidates etc. candidates can contact UPSC’s Facilitation Counter near gate ‘C’ of its campus in person or through 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.

   - 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 of submission for application is allowed.

Government strives to have a workforce which reflects gender balance and women candidates are encouraged to apply.
Applications are now invited for the following Services and posts noted above. The Civil Services 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 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 December, 2014.

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 a citizen of India, or a subject of Nepal, or a citizen of Bhutan, 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, Malawi, Zaire, Ethiopia and Vietnam with the intention of permanently settling in India.

(ii) Age Limits

(a) A candidate must have attained the age of 21 years and must not have attained the age of 32 years on the 1st August, 2014, i.e., he/she must have been born not earlier than 2nd August, 1982 and not later than 1st August, 1991.

(b) An eligible candidate can however apply for a maximum of five years in the case of Defence Services personnel desirous of retiring on compassionate grounds. Necessary action to make corresponding changes in respective Rules, Regulations pertaining to various services is being taken separately.

(c) The upper age limit prescribed above will be relaxable:

(i) up to a maximum of five years if a candidate belongs to a Scheduled Caste or a Scheduled Tribe;

(ii) up to a maximum of three years in the case of candidates belonging to Other Backward Classes provided they are eligible to avail of reservation applicable to such candidates.

(iii) up to a maximum of five years if a candidate had ordinarily been domiciled in the State of Jammu & Kashmir during the period from 01.10.1947 to the 31st day of December, 1989.

(iv) up to a maximum of three years in the case of Defence Services personnel desirous of retiring on compassionate grounds.

Next in para 3 (ii) (b) (vii) above, no subsequent request for its change will be considered to be eligible for appointment only if he/she has such a valid claim to the reservation in question as the Government or appointing authority, as the case may be, may pre-scribe in this behalf. Such relaxation in the conditions of age shall not affect the other conditions of eligibility.

NOTE II:

1. The date of birth as claimed in the online Application Form for the Civil Services (Main) Examination will be considered as the basis for determining content of age relaxation under para 3 (ii) (b) and (vii) above. A physically disabled candidate will be considered to be eligible for appointment only if he/she has such a valid claim to the reservation in question as the Government or appointing authority, as the case may be, may pre-scribe in this behalf. Such relaxation in the conditions of age shall not affect the other conditions of eligibility.

2. No candidate who is or has been claimed by them and entered in the records of the Commission for the purpose of admission to examination, no change will be allowed in his/her claim to relaxation in any other examination of the Commission) on any grounds whatsoever.

Note: The candidate should exercise due care while entering their date of birth in the online Application Form for the Civil Services (Main) Examination. The 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.
Minimum Educational Qualifications:

The candidate must hold a degree of any University incorporated by an Act of Parliament or declared to be 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 Civil Services Examination, will be required to produce the proof of passing the requisite examination. Examination will be required to produce the proof of requisites of the Commission for an appearance at the said examination.

Note II:

In exceptional cases the Union Public Service Commission may treat a candidate who does not have any of the foregoing qualifications as a qualified candidate provided that he/she has passed examination at a level equivalent to or higher than the University of Delhi, or 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 degree(s) recognized 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 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 eligible to apply for 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.

(v) Number of attempts:

Every candidate appearing at the examination, whether he/she is eligible to apply or not, shall be permitted six 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 the General Category shall be as many as are otherwise eligible to be nine.

The relaxation will be available to the physically handicapped candidates who are eligible for reservation application to such candidates.

Note:

(i) An attempt at a Preliminary Examination shall be deemed to be an attempt at the Civil Services Examination.

(ii) A candidate who has cleared any one paper in the Preliminary Examination, he/she shall be deemed to have made an attempt at the Examination.

(iii) Notwithstanding the discontinuation/cancellation of candidature, the fact of appearance in the Preliminary Examination will count as an attempt.

(vi) Restrictions on applying for the examination:

A candidate who is appointed to the Indian Administrative Service or the Indian Foreign Service on the basis of an earlier examination and continues to be a member of that service will not be eligible to compete at this examination.

In case of the candidate passing the IAS/IFS after the Preliminary Examination of Civil Services Examination, 2014 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, 2014 notwithstanding his/her having qualified in the Preliminary Examination, 2014.

Also provided that if such a candidate is appointed to IAS/IFS after the commencement of the Civil Services (Main) Examination, 2014, he/she shall be deemed to have made the attempt thereon and thereafter to be a member of that service, he/she shall not be considered for selection on the basis of the result of this examination viz Civil Services Examination, 2014.

(vi) Physical Standards:

Candidates must be physically fit according to the standards prescribed for Civil Services Examination, 2014 as per guidelines given in Appendix-III of Rules for Examination published in the Gazette of India Extraordinary dated 31st May, 2014.

4. FEES:

(i) Fees (excluding Female/SC/ST/PH Candidates who are exempted from payment of fee) are required to be paid for the Civil Services Examination, 2014 only either by remitting the money in any Branch of SBI by Cash, or by using net banking facility of State Bank of Bikaner & Jaipur/State Bank of Hyderabad/State Bank of Mysore/State Bank of Nagpur/State Bank of Travancore or by using Visa/Master Credit/Debit Card.

Applications without the prescribed Fee for whatever reason (fee is claimed) shall be summarily rejected.

(ii) Fee once paid shall not be refunded on any circumstances nor can the fee be held in reserve for any other examination or selection.

If any candidate who took the Civil Services Examination held in 2013 wishes to apply for the examination in 2014, he/she must submit his/her application without waiting for the results or an offer of appointment.

Note IV:

Candidates admitted to the Main Civil Services Examination shall be required to pay a further fee of Rs. 200/- (Rupees Two hundred only).

5. How to Apply:

(a) Candidates are required to apply online using the website http://www.upsc.nic.in Detailed instructions for filling up of online forms are available on the above mentioned website.

(b) Candidates are advised to submit only single application; however, if due to any unavoidable situation, if he/she submits another/multiple applications he/she must ensure that the application with the higher RID is complete in all respects like applicants’ details, Bank details, photograph, signature, fee etc. The applicant who are submitting multiple applications should note that only applications with higher RID (Registration ID) shall be entertained and applications with the lower RID against one RID shall not be adjudged against any other RID.

(c) The candidate who is already in Government Service, Government owned industrial undertakings or other similar organisations or in private employeement who wishes to apply shall be required to act directly 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 employeones or those serving under the Public Enterprises are however, required to submit an undertaking that they have informed their Office/Department that they have applied for the Examination.

Note 1:

In case a communication is received from the employer by the Commission withholding permission to the candidate for appearing at the examination, their application will be liable to be rejected/candidature will be liable to be cancelled.

Note 2:

Providing scribble to a blind candidate or allowing him/her to bring his/her own scribe, suitable modification has been made in the examination programme to get the information at the time of the initial online application itself and later as per the existing practice.

Note 3:

Candidates appearing in CS (P) Examination, 2014 will be required to indicate such information as (a) detail of centres for Civil Services (Main) Examination and Indian Forest Service (Main) Examination (b) Optional subject to be selected for the examination, (c) Preference of Scheduled Civil Services (Main) Examination and (d) compulsory Indian Language for Civil Services Examination at the time of filling up online application itself.

Note 4:

Candidates are not required to submit declaration of birth certificate in support of their claim.

Regarding Age, Educational Qualifications, terms of Rule 14 of the rules for the Civil Services (Main) Examination, 2014 and the existing practice.

Note 5:

(c) Providing a substitute for a blind candidate or otherwise not following the existing practice for the conduct of the examination, or

(d) participating in any activity which is not in consonance with the practice.

(Unless remission of Fee is claimed) shall not be eligible for fee remission.

Applications without the prescribed Fee (unless remission of Fee is claimed) shall not be entertained.

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Applications without the prescribed Fee for whatever reason (fee is claimed) shall be summarily rejected.

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No candidate will ordinarily be allowed to hold the examination unless he/she holds the e-Admission Certificate. Examination. On downloading of e-Admission Certificate, check carefully and ensure that you, to the notice of UPSC immediately.

Candidates should note that their admission to the examination will be purely provisional based on the information given by them in the Application Form. Thereafter, candidates to verify with the admission to the examination, examining a disorderly scene and the like, or helping another person bodily harm to the staff employed by the Commission for the conduct of their examinations,

(ii) in the possession of or using mobile phone, pager or any electronic equipment or device or any other communication device during the examination;

(iii) attempting to commit or as the case may be, be abetting the Commission of any of the acts specified in the following cases, may in addition to rendering himself/herself liable to criminal prosecution, be dealt with:

(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 period, as may be determined by the Commission, from any examination or selection held by the Commission,

(c) if he/she is already in service, under Government to disciplinary action under the appropriate Rules. Provided further that no penalty under this Rule shall be imposed except after

(i) giving the candidate an opportunity of making representation in writing, against the particulars in which he/she may wish to make in that behalf, and

(ii) giving 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 last date for receipt of the applications filled up to 30th June, 2014 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.

(ii) A candidate who does not receive an e-Admission Certificate or any other communication regarding his/her candidature within three weeks before the commencement of the examination, he/she should at once contact the Commission on the above-mentioned number and an undertaking to the effect that he/she is entitled to such reservation/relaxation benefits available for SC/ST/OBC/Handicapped/PH/Ex-servicemen must ensure that they are entitled to such reservation/relaxation benefits available for SC/ST/OBC/PH/Ex-servicemen.

(iii) If a question is left blank, i.e. no answer, it will be treated as a wrong answer, and there will be no penalty for that question.

(iv) If a candidate gives more than one answer, it will be treated as a wrong answer and not one of the answers given will be considered for awarding the most appropriate and not answer for such question.

(v) 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.

(vi) If a question has been given by the candidate, one-third (0.33) of the marks assigned to that question shall be deducted.

(vii) If a question is left blank, i.e. no answer, it will be treated as a wrong answer, and there will be no penalty for that question.

(viii) If a candidate gives more than one answer, it will be treated as a wrong answer, and not one of the answers given will be considered for awarding the most appropriate and not answer for such question.

(ix) If a question has been given by the candidate, one-third (0.33) of the marks assigned to that question shall be deducted.

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 Form.

N.B. I. Communication not containing the above particulars may not be attended to.

B. Candidates should also note down their RID number for future reference. They may be required to indicate their candidate number in the examination hall.

(i) The Civil Service Preliminary Examination is 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 is likely to be about equal to the total approximate number of vacancies to be filled in the year through this examination.

2. The Preliminary Examination consists of two papers of Objective type (multiple choice questions) and carries a maximum of 200 marks each, in all. The examination will be conducted in two sessions (A) and (B) specified below 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 is likely to be about equal to the total approximate number of vacancies to be filled in the year through this examination.

Note I : The Commission will draw a list of candidates to be qualified for Civil Service (Main) Examination based on the marks obtained by them in the Preliminary Examination which will be notified by the Commission, the two papers put together.

Section-II Schedule and subjects for the Preliminary and Main Examinations.

A. Preliminary Examination

The written examination will consist of 9 papers of conventional essay type in the subjects set out in sub-section (B) of Section III of the Rules, each paper to be of qualifying in nature. Also see Note (ii) under Para I of Section II (B). Marks obtained in the Preliminary and Main Examinations (Paper-I to Paper-VI) and Marks obtained in Interview for Personality Test will be counted for ranking.

(i) The candidates who obtain such minimum qualifying marks in the written part of the Main Examination as may be fixed by the Commission for each service or class of posts, 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 not exceed twice the number of vacancies to be filled. The interview will carry 275 marks altogether.

(ii) Marks thus obtained by the candidates in the Main Examination (written part as well as interview) would determine their ranking among the candidates admitted to the various services keeping in view their ranks in the Examination and the preference of the candidates for Main Examination and services and posts.

(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...
Percentage and English, but the subject of all the candidates would be obtained in these papers will not be of qualifying nature. The marks obtained will not be considered in the merit ranking. However, the Commission reserves the right to cancel the candidates opt for a language other than English, if they misuse the language opted by them. Candidates should, however, note that if they misuse the language opted by them, their script(s) will not be valued for marks.

(ii) The papers on Indian languages and Santhali, Sindhi, Tamil, Telugu, Urdu and English (Paper A and Paper B) will be of qualifying nature. The marks obtained in these papers will not be considered in the merit ranking. However, the Commission reserves the right to cancel the candidates who misuse the language opted by them.

NOTE:

(i) For answering the comprehension questions, the candidates are advised to write the answers in their own handwriting. In no circumstances, will the answers written on a typewriter or by using a font too large be valued for marks.

(ii) The papers on Indian languages and English (Paper A and Paper B) in the Main Examination will be of qualifying nature. The marks obtained in these papers will not be considered in the merit ranking. However, the Commission reserves the right to cancel the candidates who misuse the language opted by them.

(iii) In the case of a candidate's handwriting is not 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 only for orderly, express and exact expression combined with due economy of words in all subjects of the examination.

(vi) The papers are designed to judge the mental ability and depth of interest, ability for social adjustment, ability for assimilation, clear and logical communication, interpersonal skills and development of competitive and unbiased observers. The test is intended to judge the mental ability of the candidates, hence there is really an assessment of not only his/her intellectual qualities but also social traits and their interest in current affairs. Therefore, the candidates judged are mental alertness, critical powers of assimilation, clear and logical communication, interpersonal skills and development of moral integrity.

(vii) The purpose of the interview is not that of a strict cross-examination but of a natural, though directed and purposive conversation. The interview is intended to reveal the mental qualities of the candidate.

(viii) The interview test is not intended to be a test of the specialised or general knowledge possessed by the candidates which has already been tested through their written papers. Candidates are expected to have knowledge of the subjects included 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-read youth.

Section-III

Syllabi for the Examination

NOTE: Candidates are to be advised to consult the syllabi published in this newsletter for the Preliminary examination and the Main examination as periodic syllabus has been done in this regard. The following part gives the syllabus of Part-A Preliminary Examination. Paper I (200 marks) Duration: Two hours

1. Current events of national and international importance.
2. History and Indian and world geography.
3. Indian and world geography.
5. India's Constitution, Polity, System, Panchayati Raj, Public Policy, Public Administration, etc.
6. Economic and Social Development - Sustainable Development, Poverty, Inclusion, Water resources, Social Sector initiatives, etc.
7. General issues on Environmental conservation and the Protection of the Environment including protection and Regulation of Pollution.

(i) The papers on Indian languages and English (Paper A and Paper B) will be of qualifying nature. The marks obtained in these papers will not be considered in the merit ranking. However, the Commission reserves the right to cancel the candidates who misuse the language opted by them. Candidates should, however, note that if they misuse the language opted by them, their script(s) will not be valued for marks.

(ii) The papers on Indian languages and English (Paper A and Paper B) will be of qualifying nature. The marks obtained in these papers will not be considered in the merit ranking. However, the Commission reserves the right to cancel the candidates who misuse the language opted by them.
he/she does not appear in both the papers of Civil Services (Preliminary) Examination or Part-B Main Examination

The main examination is intended to assess the overall intellectual traits and deep understanding of candidates rather than merely the range of their information and memory. The number 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 view a conflict 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 Preliminary examination is broadly of the honor degrees level i.e. a level higher than the bachelor’s degree and lower than the masters’ degree. In the case of Entrance- Medical, Engineering and Technology the level corresponds to the bachelor's degree. Syllabi of the papers included in the scheme of Civil Services (Main) Examination are given as follows:

**QUALIFYING PAPERS ON INDIAN LANGUAGES AND LITERATURE**

The aim of the paper is to test the candidates ability to read and understand serious discursive prose, and express his ideas clearly and correctly in English and Indian Language concerned.

The pattern of questions would be broadly:

(1) Comprehension of given passages
(2) Precis Writing
(3) Usage and Vocabulary
(4) Short Essays

Translation from English to the Indian languages and vice-versa

**Note 1** : The papers on Indian Languages and English will be of Matriculation or equivalent standard and will be qualifying only in nature. The marks obtained in these papers will not be counted for ranking.

**Note 2** : The candidates will have to answer the English and Indian Languages papers in English and the respective Indian language (except when translation is involved).

**PAPER I**

**Essay**

Candidates may be required to write essays on multiple topics. They will be expected to keep within the subject of the essay to arrange their ideas in an orderly fashion and to write concisely. Credit will be given for effective and exact expression.

**PAPER II**

**General Studies-I: Indian Heritage and Culture, History and Geography of the World, Environment**

- 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 and personalities.
- 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 events from 18th century such as industrialization, revolutions, wars, redrewal of national boundaries, colonization, decolonization, political philosophies like communism, capitalism, socialism, secularism, and the forms and effect on the society.
- 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., geographic features and their location- changes in critical geographical features (including water-bodies and ice-caps) and in the weather and fauna and the effects of such changes.

**PAPER III**

**General Studies-II: Governance, Constitution, Polity, Social Justice and International relations**

- Constitution- historical underpinnings, evolution, features, amendments, significant provisions and basic structure.
- Functional aspects of the Union and the States, issues and challenges pertaining to the federal structure, structure, powers and functions up to local levels and challenges therein.
- Separation of powers between various organs dispute redressal mechanisms and institutions.
- Comparative features of the 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 Departments, autonomy and dependency, pressure groups and formal/informal associations and their role in the Polity.
- Significant features of the Representation of People’s Act. Appointment to various Constitutional Bodies and their functions and responsibilities of various Constitutional Bodies.
-. Judicial and executive and 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. NGOs, SHGs, various groups and associations, donors, charities, international and other stakeholders.
- Welfare schemes for vulnerable sections of the population by the government and measures of performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.
- Impact of development 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 in the e-government-applications, models, essentials, limitations, and potential, citizens charters, transparency & 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, Biodiversity, Environment and Security and Disaster Management.**

- Indian Economy and issues relating to planning, protection of natural resources, growth, development and employment.
- Inclusive growth and issues arising out of 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 products, import and export, trade constraints; e-technology in the aid of farmers.
- Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System- objectives, functionalities, limitations, revamping; issues of buffer stocks and food security; Technology missions; economics of agriculture.
- Food processing and related industries in India- scope and significance, links with upstream and downstream requirements, supply chain management.
- Land reforms in India.
- Effect of globalization on the economy, changes in industrial policy and their effects on industrial growth.
- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.
- Development processes and the development industry.
- Science and Technology- developmental applications and their 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, biotechnology and issues related to intellectual property rights.
- Conservation, environmental pollution and issues relating to environmental impact assessment.
- Disaster and disaster management.
- Linkages between development and spread of extremism.
- Role of external state and non-state actors in subverting international security.
- Challenges to internal security through violence, terrorism and subversion. Role of media and social network 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.
- Voluntary 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, probably in public life. The approach may vary from various issues and conflicts faced by him in dealing with society. Questions may utilise the case study approach to test these aspects. The following broad areas will be covered.

- Ethics and Human Interface:
  - Essence, determinants and consequences of ethics in social actions; dimensions of ethics; ethics in private and public relations.
  - 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, dedication to duty, honesty, dedication to public service, empathy, tolerance and compassion towards the weaker-sections. Emotionality, self-confidence, and their utilities and application in administration and governance.
- Communication - written and oral communication; role of thinkers and philosophers from India and world.
- Public/Civil Service values and Ethics in Public Administration: and accountability, social values and 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 challenges of corruption and integrity.
- Case Studies on above issues.

**PAPER VI & PAPER VII**

Optional Subject Papers I & II

Candidates may choose any optional subject from the list of Optional Subjects given in para 2.

**AGRICULTURE**

**PAPER-I**

Ecology and its relevance to man, natural resources, their sustainable management and conservation. And physical and social environment as factors of crop distribution and food security. Agro-ecology; cropping pattern as indicators of environment. Environmental pollution and associated hazards to crops, animals and human health. International conventions and global initiatives. Green movement 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
1. Animal Husbandry and Veterinary Science

1.1 Animal Breeding


1.2 Advanced in ruminant nutrition. Nutrient requirements. Balanced rations. Feeding of calves, pregnant, work animals and breeding bulls; new feeding regimes for young stock and bulls, heifers and breeding animals; new trends in feeding young and adult stock; barriers to conversion.


1.9 Livestock Production and Management


2.3 Circulation - Physiology of heart, cardiac cycle, heart sounds, heart beat, electrocardiogram. Work, work efficiency, and heart-effect of ions on heart function - metabolism of cardiac muscle, nervous and chemical regulation of heart, effect of temperature on heart, blood trials - direct, indirect and indicator methods. Predicting feed intake in grazing animals.

2.4 Nutrition. Feeding of calves, pregnant, work animals and breeding bulls; new feeding regimes for young stock and bulls, heifers and breeding animals; new trends in feeding young and adult stock; barriers to conversion.


1. Anatomy, Pharmacology and Hygiene:

1.1 Histology and Histological Techniques: Paraffin embedding technique of tissue processing and H&E staining. Freezing microscopy. Microscopy - Bright field and dark field microscopy. Cytology - structure of cell, organs and inclusions; cell division - cell type - tissues and their classification - embryology and classification of histology of organs - Vascular, Nervous, digestive, respiratory, musculo-skeletal and urogenital systems - Endocrine glands - urogenital system.


1.3 Bovine Anatomy - Regional Anatomy: Head and neck, head and neck - especially craniofacial region; shoulder and thoracic region; muscular system - thorax and abdomen; pelvic organs - male, female; urogenital system.


1.7 Culture, language and communication: Meaning, scope and relevance of anthropological theories: Formalist and Substantivist debate; Principles of government production, distribution, exchange and marketing, in communities, subsisting on hunting and gathering, fishing, widdening, pastoralism, horticulture, and agriculture; globalization and indigenous economic systems.

2. Epidemiology and Public Health:

2.1 Zoonoses: Classification, definition, role of animals and birds in prevalence and transmission of zoonotic diseases - occurrence of zoonotic diseases.

2.2 Epidemiology: Principle, definition of epidemiological terms, application of epidemiological measures in the study of diseases - mortality, morbidity, disease control. Epidemiological features of air, water and food borne infections. OIE regulations, WTO, sanitary and phytosanitary measures.


3. Veterinary Public Health:

3.1 Meat and Milk Products Technology:


3.2 Milk Products Technology: Selection of raw materials, processing, storing, distributing and marketing of milk products such as Cream, Butter, Ghee, Khoya, Channa, Cheese, condensed, evaporated, sweetened condensed, food milk, Kulfì; by-products, whey products, butter milk, lactose and casein. Testing, grading, judging milk products - BIS and Agricultural Good Manufacturing Practices. Legal quality control and nutritive properties. Packaging, processing and operational control. Costing of dairy products.

3.3 Meat Products Technology:

3.3.1 Meat Hygiene.

3.3.2 Meat, Cheese and Dairy.

3.3.3 Other Animal Products Technology.

3.4 Veterinary Public Health:

3.5 Meat and Milk Products Technology:

3.6 Meat Products Technology:

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3.149 Meat Products Technology:
9. Chemical Kinetics:
- Differential and integral rate equations for zeroth, first, and second-order reactions
- Effect of temperature and pressure on reaction rates
- Chain reactions: propagation, termination, and inhibition
- Rate enhancements by homogeneous and heterogeneous catalysis
- Theories of reaction rates: Arrhenius, Eyring, and transition-state theory

10. Molecular Spectroscopy:
- Electronic transitions and selection rules
- Absorption and emission spectra of molecules
- Rotational, vibrational, and Raman spectroscopy
- Applications in organic and inorganic chemistry

11. Thermodynamics:
- Concepts of equilibrium and spontaneity
- First law of thermodynamics: energy conservation
- Second law of thermodynamics: entropy
- Third law of thermodynamics: absolute zero
- Phase transitions and phase diagrams

12. Biochemical Thermodynamics:
- Enzyme kinetics and thermodynamic aspects
- Thermodynamics of protein folding
- Thermodynamics of DNA and RNA structure
- Thermodynamics of metabolic reactions

13. Chemical Reaction Engineering:
- Reaction kinetics in continuous and batch processes
- Catalysis: homogeneous and heterogeneous catalysts
- Reaction engineering: reactor design and scale-up

14. General Chemistry of the p Block Elements:
- Structure, bonding, and properties of p-block elements
- Periodic trends and applications

15. General Chemistry of the f Block Elements:
- Actinides and lanthanides: chemistry and applications
- Actinide and lanthanide chemistry in nuclear fuels

Concept of Force, Concept of particle and rigid body, Concurrent, Non Concurrent, Momentum, kinetic energy, moment of force, free body diagram, conditions of equilibrium, Principle of virtual work, equivalent force system.

2. Thermodynamics
1. Introduction to the concept of equilibrium and spontaneity
2. First law of thermodynamics: energy conservation
3. Second law of thermodynamics: entropy
4. Third law of thermodynamics: absolute zero
5. Phase transitions and phase diagrams

3. Spectroscopy
1. Electronic transitions and selection rules
2. Absorption and emission spectra of molecules
3. Rotational, vibrational, and Raman spectroscopy
4. Applications in organic and inorganic chemistry

4. Chemical Kinetics
1. Differential and integral rate equations for zeroth, first, and second-order reactions
2. Effect of temperature and pressure on reaction rates
3. Chain reactions: propagation, termination, and inhibition
4. Rate enhancements by homogeneous and heterogeneous catalysis
5. Theories of reaction rates: Arrhenius, Eyring, and transition-state theory

5. Molecular Spectroscopy
1. Electronic transitions and selection rules
2. Absorption and emission spectra of molecules
3. Rotational, vibrational, and Raman spectroscopy
4. Applications in organic and inorganic chemistry

6. Thermodynamics
1. Concepts of equilibrium and spontaneity
2. First law of thermodynamics: energy conservation
3. Second law of thermodynamics: entropy
4. Third law of thermodynamics: absolute zero
5. Phase transitions and phase diagrams

7. Spectroscopy
1. Electronic transitions and selection rules
2. Absorption and emission spectra of molecules
3. Rotational, vibrational, and Raman spectroscopy
4. Applications in organic and inorganic chemistry

8. Chemical Kinetics
1. Differential and integral rate equations for zeroth, first, and second-order reactions
2. Effect of temperature and pressure on reaction rates
3. Chain reactions: propagation, termination, and inhibition
4. Rate enhancements by homogeneous and heterogeneous catalysis
5. Theories of reaction rates: Arrhenius, Eyring, and transition-state theory

9. Molecular Spectroscopy
1. Electronic transitions and selection rules
2. Absorption and emission spectra of molecules
3. Rotational, vibrational, and Raman spectroscopy
4. Applications in organic and inorganic chemistry

10. Thermodynamics
1. Concepts of equilibrium and spontaneity
2. First law of thermodynamics: energy conservation
3. Second law of thermodynamics: entropy
4. Third law of thermodynamics: absolute zero
5. Phase transitions and phase diagrams

11. Spectroscopy
1. Electronic transitions and selection rules
2. Absorption and emission spectra of molecules
3. Rotational, vibrational, and Raman spectroscopy
4. Applications in organic and inorganic chemistry

12. Chemical Kinetics
1. Differential and integral rate equations for zeroth, first, and second-order reactions
2. Effect of temperature and pressure on reaction rates
3. Chain reactions: propagation, termination, and inhibition
4. Rate enhancements by homogeneous and heterogeneous catalysis
5. Theories of reaction rates: Arrhenius, Eyring, and transition-state theory

13. Molecular Spectroscopy
1. Electronic transitions and selection rules
2. Absorption and emission spectra of molecules
3. Rotational, vibrational, and Raman spectroscopy
4. Applications in organic and inorganic chemistry

14. Thermodynamics
1. Concepts of equilibrium and spontaneity
2. First law of thermodynamics: energy conservation
3. Second law of thermodynamics: entropy
4. Third law of thermodynamics: absolute zero
5. Phase transitions and phase diagrams

15. Spectroscopy
1. Electronic transitions and selection rules
2. Absorption and emission spectra of molecules
3. Rotational, vibrational, and Raman spectroscopy
4. Applications in organic and inorganic chemistry

16. Chemical Kinetics
1. Differential and integral rate equations for zeroth, first, and second-order reactions
2. Effect of temperature and pressure on reaction rates
3. Chain reactions: propagation, termination, and inhibition
4. Rate enhancements by homogeneous and heterogeneous catalysis
5. Theories of reaction rates: Arrhenius, Eyring, and transition-state theory

17. Molecular Spectroscopy
1. Electronic transitions and selection rules
2. Absorption and emission spectra of molecules
3. Rotational, vibrational, and Raman spectroscopy
4. Applications in organic and inorganic chemistry

18. Thermodynamics
1. Concepts of equilibrium and spontaneity
2. First law of thermodynamics: energy conservation
3. Second law of thermodynamics: entropy
4. Third law of thermodynamics: absolute zero
5. Phase transitions and phase diagrams
on page and curved surfaces. Kinematics and Dynamics of Fluid Flow: Viscosity and surface forces, stream lines, equation of continuity, irrotational and rotational flow, velocity potential and stream functions.

3.1 Turbulent Flow: Momentum and energy equation, Navier-Stokes equation, Euler’s equation of motion, application to fluid flow problems, pipe flow, pipe flows, 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 rotating boundaries. 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 equations, specific energy and specific force, critical depth, gradually varied flow, hydraulic jump, gradually varied flow, classification of surface waves, determination of the method of integration of varied flow equation.


5.1 Chemical engineering: Mass transfer – mass transfer coefficients, mass transfer in chemical reactions, mass transfer in chemical reactors. Mass transfer – mass transfer coefficients, mass transfer in chemical reactions, mass transfer in chemical reactors.

5.2 Heat transfer: Thermal conductivity, convection, radiation, nucleate boiling, forced convection. Thermal conductivity, convection, radiation, nucleate boiling, forced convection.


5.5 Process design and synthesis: Chemical reactor design, mass and energy balances in chemical processes, chemical reactor design, mass and energy balances in chemical processes, chemical reactor design, mass and energy balances in chemical processes.

5.6 Chemical reaction engineering: Chemical reaction rates, chemical reaction mechanisms, chemical reaction rates, chemical reaction mechanisms, chemical reaction rates, chemical reaction mechanisms. Kinetics of homogeneous and heterogeneous reactions, kinetics of homogeneous and heterogeneous reactions, kinetics of homogeneous and heterogeneous reactions.

5.7 Production processes: Chemical engineering processes, chemical engineering processes, chemical engineering processes. Mass and heat transfer in chemical engineering processes, mass and heat transfer in chemical engineering processes, mass and heat transfer in chemical engineering processes. Fluid flow and heat transfer in chemical engineering processes, fluid flow and heat transfer in chemical engineering processes, fluid flow and heat transfer in chemical engineering processes.
3. **Money - Banking and Finance:**
   (a) Demand for and Supply of Money: Money Multiplier and Determinants of Money (Fisher, Pique and Friedman) and Keynes’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. Proposition for ceiling on growth rate of money.
   (b) Public Finance and its Role in Market Economy. In stabilization of supply and demand of real resources and in distribution and development. Sources of Govt. revenue, forms of taxation. The role of finance in the pur- pose of Government and its effect. Limits to taxation, loans, crowding-out effects and limits to borrowing. Public Finance; Debt and tax effects.

4. **International Economics:**
   (a) New and Old Theories of International Trade
      i. Comparative Advantage
      ii. Terms of Trade and Offer Curve
      iii. Product Cycle and Strategic Trade Theories.
      (iv) Endogenous growth and theories of under development in an open economy.
   (b) Forms of Protection: Tariff and non-tariff measures.
   (c) Balance of Payments Adjustments: Alternative Approaches.
      i. Price versus income, income adjustments under fixed exchange rates,
      ii. Theories of Policy Mix
      iii. Rate adjustment under capital mobility
   (d) Floating Rates and their Implications for Developing Countries
      (i) Trade Policy and Developing Countries.
      (ii) BOP, adjustments and Policy Coordination in open economy macro-model.
      (iii) Speculative attacks
      (iv) Trade Blocks and Monetary Unions.
      (v) WTO: TRIMS, TRIPS, Domestic Measures, Different Rounds of WTO talks.

5. **General Economics (Optional):**
   (i) Theories of growth: Harrod’s model,
   (ii) Lewis model of development with surplus labour
   (iii) Balanced and Unbalanced growth,
   (iv) Growth and Capital and Economic Growth.
   (v) Research and Development and Economic Growth.
   (b) Problems 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.
   (c) Economic Development and International Trade and Investment, Role of Multinationals.
   (d) Planning and Economic Development: changing role of Markets and Planning. Private- Public Partnership
   (e) Welfare indicators and measures of growth and distribution. The Convergence and Development Indices. The basic needs approach.
   (f) Development and Environmental Sustainability – Renewable and Non Renewable Resources, Environmental Degradation, Intergenerational equity development.

**PAPER – II**

1. **Indian Economy in Pre-Liberation Era**
   Land System and its changes, Commercialization of agriculture, Drain theory; Revolution in production sector; Manufacture and Transport; Jute, Cotton, Railways, Money and Credit.

2. **Indian Freedom Movement**
   A The Pre Liberalization Era:
      (ii) Land Reforms and land tenure system, Green Revolution and capital formation in agriculture,
      (iii) Industry Trends in composition and growth, Role of public and private sector, Small scale and cot- tage industry
      (iv) National and Per capita income: patterns, trends, aggregate and Sectoral composition and changes in expenditure.
   (b) Broad factors determining National Income and distribution, Measures of poverty, Trends in poverty and inequality.
   (c) The Post Liberalization Era:
      (i) New Economic Reform and Agriculture: Agriculture and WTO, Food Trends, Subsidies, Agricultural prices and public subsidy system, Impact of public expenditure on agricultural growth.
      (ii) Employment and Industry: Strategy of industrializa- tion, Privatization, Disinvestments, Role of foreign direct investment and Disinvestment and privatization.
      (iv) New Exchange Rate Regime: Partial and full convertibility, Capital account convertibility.
      (vi) New Economic Policy and Monetary system. Role of RBI under the new regime.
      (vii) Planning: From central Planning to indicative planning. Relation between planning and role of bureaucracy in market oriented planning: 73rd and 74th Constitutional amendments.
   (b) New Economic Policy and Monetary system. Role of RBI under the new regime.
   (vii) Planning: From central Planning to indicative planning. Relation between planning and role of bureaucracy in market oriented planning: 73rd and 74th Constitutional amendments.

**ELECTRICAL ENGINEERING**

**PAPER - I**

1. **Circuit Theory:***
   Component circuits; networks; Graph theory; Kirchhoff’s laws; Network equivalents; nodal analysis, mesh analysis; basic net- work theorems and applications; trans- analys: RL, RC and RLC circuits; steady state analysis, resonant cir- cuits; coupled circuits; balanced 3-phase circuits; Two-port networks.

2. **Signals & Systems:**
   Analysis of continuous-time and discrete-time signals & systems; LTI sys- tems; convolution; impulse response; time-domain analysis of LTI systems stability; frequency domain analysis; differ- ence equations. Fourier transform, Laplace transform, Z-transform, Transfer functions, Sampling and Recovery, Probability DFT, FFT Processing of analog sig- nals through discrete-time systems.

3. **E.M. Theory:**

**PAPER - II**

1. **Control Systems:**

2. **Microprocessors and Microcom- puters:**
   PC organization; CPU, instruction set, register set, timing diagram, program- ming, interrupts, memory interchanging, I/O interfacing, programmable peripheral devices.
3. Measurement and Instrumentation: Error analysis; measurement of current; voltmeter, ammeter; strain gauge, resistor, inductance, inductive capacity and frequency; bridge measurement. Signal conditioning circuit; Electronic measuring instruments: Ohmmeter, CRO, digital voltmeter, frequency counter, Q-meter, spectrumanalyser; distortion-meter. Transducers: thermocouple, thermistor, LVDT, and pressure transducer.

4. Power Systems: Analysis and Control: Steady-state performance of overhead transmission line and cables; principles of active and reactive power transfer and distribution; per-unit quantities; bus admittance and impedance matrices; load flow, control and power factor correction; economic operation; symmetrical components analysis; method of computation. Concept of system stability; swing curves and equal area criterion. Static VAR systems. Basic concepts of HVDC transmission.


GEOGRAPHY

PAPER - I

PRINCIPLES OF GEOGRAPHY

1. Physical Geography: Factors controlling landform; orography, climatic and exogenic forces; Origin and evolution of the earth’s crust; Fundamentals of geomagnetism; Physical conditions of the earth’s surface; Hypsometry, hydrology, Continental drift; Isostasy. Plate tectonics; Recent views on mountain building: Volcanics; Earthquakes and Tsunamis; Continental drift; Geomorphology and cycles and Landscape development; Denudational chronology; Channel morphology; Erosion surfaces; Slope development; Aggradation and deposition; Geomorphology, economic geography and environment.

2. Climatology: Temperature and pressure belts of the earth; Heat budget of the earth; Atmospheric circulation; atmospheric stability and instability. Planetary and local winds; Monsoons and jet streams; Air masses and fronts; Air temperature; Temperate and tropical cyclones; Types and distribution of precipitation; Weather and Climate; Koppen’s, Thornthwaite’s and other climatic classification; Isotherms; Temperature and precipitation; Climatic region and scale-size; Functional classification of towns; Sphere of urban influence; Rural - urban fringe; Satellite towns; Problems and remedies of urbanization; Sustainable development of cities.

3. Regional Planning: Concept of a region; Types of regions and methods of regionalisation; Growth centres and growth poles; Regional imbalances; regional economic development; Regional economic issues in regional planning; Planning for sustainable development.

4. Population and Settlement Geography: Population distribution and growth of world population; demographic attributes; Causes and consequences of migration; Demographic transition models; Assessment of growth of world population; Population theories, world population problems and policies, Social well-being and quality of life; Population as an index.

5. Types and patterns of rural settlements; Environmental issues in rural settlements; Hierarchy of urban settlements; Urban morphology; Economic and political conditions; City and town planning; Hierarchy of urban settlements; Environmental issues in rural settlements; Urban Planning and community development; Town and City planning.

6. Settlements: Types, patterns and morphology of rural settlements; Urban structure and form; Morphology of cities; Functional classification of Indian cities; Contour and metropolitan regions; urban sprawl; Slums and associated problems; town planning; Problems of urbanization and regional development.

7. REGIONAL DEVELOPMENT AND PLANNING: Experience of regional planning in India; Five Year Development Plans; Regional development programmes; Panchayati Raj and decentralised planning; Command area development; Irrigation and flood control; Water harvesting; Backward area, desert, drought prone, hill, tribal area development; multi-level planning; Regional planning and development; Strategies in regional development.

8. Cultural Setting: Historical perspective of Indian society; Religion, linguistic and ethnic diversities; religious diversity and its impact on their problems; cultural regions; Growth, distribution and density of population; Demographic attributes: sex-ratio, age structure, literacy rate, age dependency ratio, longevity; migration (inter-regional, intra-regional and international) and associated problems; Population problems and policies; Health indicators.

9. SETTLEMENTS: Types, patterns and morphology of rural settlements; Urban structure and form; Morphology of cities; Functional classification of Indian cities; Contour and metropolitan regions; urban sprawl; Slums and associated problems; town planning; Problems of urbanization and regional development.

10. Contemporary Issues: Environmental hazards: landslides, earthquakes, Tsunamis, floods and droughts, epidemics; Issues relating to agro-environmental management; Watershed management; Principles of land use; Principles of environmental impact assessment and environmental management; Population and natural growth; Environmental degradation; Desertification and soil erosion; Problems of agrarian and industrial concentration and their regional implications; 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, its formation, Origin and evolution of life and earth; Volcanoes- causes and products; Volcanic belts; Earthquakes-causes, effects; Seismicity; earthquake belts; Tectonic arcs and trenches and mid-ocean ridges; Continental drifts; Seafloor spreading; Plate tectonics; Isostasy.

2. Morphology and Remote Sensing: Basic concepts of geomorphology; Weathering and soil formation; Landforms; Geomorphic cycles and their interpretation; Morphology and its relation to structures and lithology; Coastal geomorphology; Applications of geomorphology in environmental prospecting, civil engineering; Hydrology and environmental studies; Geomorphology of islands with reference to submarine and 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 geological; The Geographical Information System (GIS); Remote Sensing System (RGS) - its applications.

3. Structural Geology: Principles of geologic mapping and map reading; Restoration of geological events; Strain ellipsoid and stress-strain relationships of elastic, plastic and viscous materials; Strain markers in deformed rocks; Behaviours of geological structures and deformation conditions; Folds and faults classification and mechanics; Structural analysis of folds, foliations, lineations, joint sets and shear planes; relationship between crystallography and deformation.

4. Petrology: Species- definition and nomenclature; Megafossils and Microfossils; Modes of preservation of fossils; Different kinds of microfossils; Ancient lands; classification in correlation, petroleum exploration, paleo-climatic and paleoceanographic studies; Evolutionary trends in Hominidae, Equidae and Proboscidea; Insects and Molluscs; 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 sandstone formations of India; Study of stratigraphic distribution and lithology of Phanerzoic rocks of India with reference to fauna, flora and economic importance; Major boundary problems- Cambrian/Precambrian, Permiann/Triassic, Cretaceous/Tertiary and Quaternary; Study of climatic conditions, paleogeography and gienic activity in the 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; Permeability, hydraulic conductivity, transmissivity and storativity; Wells and boreholes; Springs and artesian wells; Water-bearing characteristics of rocks; Ground-water chemistry; Salt water intrusion; Types of wells; Drainage basin morphology; River-Channel; Groundwater recharge; Problems and management of groundwater; Rainwater management; Types of solutions of rocks; Geo-geological investigations for dams, tunnels highways, railway and bridges; Rock as construction material; Landslides-causes, prevention and rehabilitation; Earthquake-resistant structures.
1. Mineralogy:
Classification of crystallines into systems and classes of symmetry; Internal systems of crystallographic notation; Use of projection diagrams to represent crystal symmetry; Elements of X-ray crystallography.

2. Geomorphic Classification:
Physical and chemical characters of rock forming silicate mineral groups; Structural classification of silicates; Common minerals of igneous and metamorphic rocks; Minerals of the carbonates, phosphate, sulphide and halide groups; Clay minerals.

3. Geochemical and Economic Geology:
Generation and classification of magmatic and sedimentary rocks; Petrology and ore deposits; Detailed examination of the characteristics of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

4. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

5. Geology of Geosynclines:
Processes of formation; Bags wads and lithification; Climatic and non-clastic rocks; Classification, petrography and depositional environment; Sedimentary facies and provenance; Sedimentary structures and their significance; Oxfordian minerals and their significance; Sedimentary rocks.

6. Geomorphology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

7. Geochemistry and Environmental Geology:
Composition, abundance of elements; Composition of the planets and meteorites; Structure and Composition of Earth and Mars; Regional systems of crustal rock; Chemical composition of the Earth and Moon; Volcanic and extrusive rocks; Metamorphic and sedimentary rocks; International classification; Sedimentary environments.

8. Igneous and Metamorphic Petrology:
Generation and crystallization of magmatic and sedimentary rocks; Petrology and ore deposits; Detailed examination of the characteristics of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

9. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

10. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

11. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

12. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

13. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

14. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

15. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

16. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

17. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

18. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

19. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

20. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

21. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

22. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.

23. Economic Geology:
Ore, ore minerals and gangue, tenor of ore; Ore deposits; Processes of mineral deposition; Detailed examination of ore deposits; Controls of ore localization; Ore textures and structure; Metallogenic epochs and provinces; Geology of the important Indian ore deposits; Economic geology; Mineral and Energy Policy; Conservation and utilization of mineral resources; Marine mineral resources and Law of Sea.
4. Economic Impact of British Colonial Rule: 
(a) and revenue settlements in British India; The Permanent Settlement: Ryotwari Settlement; Mahalwari Settlement; Economic impact of the rev- enue settlements in India; Impact of British Administration on 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; Role of cotton in the economy; British policy on tobacco; #include 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 dis-location; British education in India; The Swadeshi Movement: the introduction of western education in India; The rise of press, literature and public opinion; The rise of modern veneration for literature and science; Christian missionary activities in India.

6. Social and Religious Reform move- ments in Bengal and the Punjab: Ram Mohan Roy, The Brahma Movement; Devendranath Tagore; Ishwarchandra Vidyasagar; The Young Bengal Movement: Emerson and Seervai; The social reform movements in India including Sati, widow remarriage, child marriage etc.; The contribution of women to the reinactment to the birth 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 (1850), the Mutila Mutila Uprising in Malabar (1841-1920), the Santal Hul (1899-1900), The Great Revolt of 1857 - Origin, character, causes of fail-ure, the consequences; The shift in the character of peasant uprisings in the post-1857 period: the peasant move- ments of the 1920s and 1930s. 

8. Factors leading to the birth of Indian Nationalism: Politics of Association; The Formation of the Indian National Congress; The Safety-value thesis relat- ing to the birth of the Congress; Prophetic Nemesis and the prelude to 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 Gujarati 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 Tables; Boycott; Non-cooperation and the Peasant Movements; Nationalism and Working class move- ments; Women and Indian youth and stu-dents; The Non-cooperation Movement; election of 1937 and the formation of min- istry; Cripps Mission; The Quit India Movement; the Wavell Plan; The Cabinet Mission.

10. Constitutional Developments in the Colonial India between 1858 and 1935: 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 par- ties. 

12. Politics of Separatism: the Muslim League; the territorial idea of Kashmir; Mahasabha; Communist and the politics of parti- tion; Transfer of power; Independence. 

13. Consolidation as a Nation: Nehru’s Foreign Policy; India and her neighbours (1947-1964); The linguistic reorganisa- tion of States (1935-1947); Regionalism and regional inequality; Integration of Princely States; Partition in electoral pol-itics; The question of National Language. 

14. Caste and Ethnicity after 1947; Backward castes and in post-colo- nial political electrolytes; Dalit movements. 

15. Economic development and political change; Land reforms; the politics of plans and infra-structural reconstruction; Ecology and environmental policy in post-colonial India; Progress of science. 


18. British Democratic Politics, 1815- 1850; Parliamentary Reformers, Free Traders, Chartists.

19. Internationalization: (i) Political and Social Revolution: Causes and Impact on Society. (ii) Internationalization in other coun-tries: USA, Germany, Russia, Japan (iii) Internationalization and Globalization.

20. Nation-State System: (i) Rise of Nationalism in 19th cen- tury. (ii) Nationalism: state-building in Germany and Italy (iii) Disintegration of Empires in the face of the Nation-State system of nationali- ties across the world.

21. Imperialism and Colonialism: (i) South-East Asia and East Asia. (ii) Latin America and South Africa (iii) Australia (iv) Imperialism and free trade: Rise of Britain and imperial reconstruction.


23. World Wars: (i) 1st and 2nd World Wars as Total Wars: Sociological Implications. (ii) World War I: Causes and conse- quences (iii) World War II: Causes and conse- quences

24. The World after World II: (i) Emergence of two power blocs (ii) Nuclear explosion of Third World anti- alignment (iii) UNO and the global disputes.

25. Liberation from Colonial Rule: (i) Latin America-Bolivar (ii) Arab World-Egypt (iii) Africa-Apartheid to Democracy (iv) South-East Asia-Vietnam

Decolonization and Underdevelopment: (i) Factors constraining develop- ment: Latin America, Africa


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 fun- damental duties.

4. Constitutional position of the President and the 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 jurisdic- tion.

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.

8. Eminent domain – State property – Constitutional safeguards; Administrative tribunals.


11. Emergency provision.


16. Ombudsman: Lokayukta, Lokpal

International Law

1. Nature and definition of international law.

2. Relationship between international law and municipal law.


4. Law of the sea: Inland waters, terri- tory, contiguous zone, continental shelf, exclusive economic zone, high seas.

5. Individuals: nationality, stateless- ness; Human rights and procedures available for their enforcement.

6. Territorial jurisdiction of States, extradition and asylum.


11. Fundamental principles of interna- tional humanitarian law.

12. Legality of the use of nuclear weapons; Nuclear – non prolifera- tion treaty, CTBT.


15. Protection and improvement of the human environment: International efforts.

PAPER - II

Law of Crimes

1. General principles of criminal liabili- ty; Mens rea and actus reus, mens rea in statutory offences.

2. Kind of punishments and emerging trends as to the abolition of capital pun-ishment.

3. Preparation and criminal attempt.

4. General exceptions.

5. Joint and constructive liability.

6. Indefinite liability.

7. Criminal conspiracy.

8. Offences against the State. 


10. Offences against human body.

11. Offences against property.

12. Offences against women.

13. Offences against the community.


15. Protection of Civil Rights Act 1955 and subsequent legislative develop- ment.


Law of Torts

1. Nature and definition. Liability based upon fault and strict liability; Absolute liability.

2. Vicarious liability including State lia- bility.


4. Remedies.

5. Negligence.

6. Defamation.

7. Nuisance.

8. Conspiracy.


10. Arson.


Law of Contracts and Mercantile Law


2. Factors violating free consent.

3. Void, voidable, illegal and unenfor- ceable contracts.

4. Performance and discharge of con- tracts.

5. Quasi-Contracts.

6. Consideration.

7. Statute of limitations.

8. Sale of goods and hire purchase.


10. Competition and monopolies.

11. Competition Law.


Contemporary Legal Developments

1. Public Interest Litigation.

2. Intellectual property rights – Copyrights, Patents, Trademarks.


5. Alternative Dispute Resolution – Concept, types/prospects.


7. Right to Information Act.

8. Trial by media.
Paper-I

History of Language and Literature

Section-A

Topics from the History of Bangla language

1. The chronological track from Proto Indo-European to Bangla (Family tree with branches and approximate dates).
2. Historical stages of Bangla (Old, Middle, New) and their linguistic features.
3. Dialects of Bangla and their distinguishing characteristics.
5. Forms of Bangla Literary Prose.
6. Processes of language change relevant for Bangladesh and its neighboring countries.
7. Problems of standardization and reform of alphabets and spelling, and those of transliteration and Romanization.

Section-B

History of Bodo Language and Literature

(Answers must be written in Bodo)

Section-A

Topics from the History of Bodo language

1. Homeland, language family, its presence and its mutual contact with Assamese.
2. Phonemes (Vowel and Consonant Phonemes) (Tones)
4. Vocabulary and its sources.
5. Syntax : Types of sentences, Word order.
6. History of Scripts used in writing Bodo Language since inception.

Section-B

History of Dogri Literature

(Answers must be written in Dogri)

Section-A

Topics from the History of Dogri literature

1. General introduction of Dogri folk literature.
3. Critical analysis of different genre (Poetry, Novel, Short Story and Drama).
4. Translation Literature.

Section-B

History of Bodo Language

(Answers must be written in Bodo)

Section-A

Topics from the History of Bodo language

1. The chronological track from Proto Indo-European to Bodo (Family tree with branches and approximate dates).
2. Historical stages of Bodo (Old, Middle, New) and their linguistic features.
3. Dialects of Bodo and their distinguishing characteristics.
5. Forms of Bodo Literary Prose.
6. Processes of language change relevant for Bangladesh and its neighboring countries.
7. Problems of standardization and reform of alphabets and spelling, and those of transliteration and Romanization.
8. Linguistics, Morphology and Syntax of Modern Bodo.

Section-B

History of Bodo Language and Literature

(Answers must be written in Bodo)

Section-A

Topics from the History of Bodo language

1. Homeland, language family, its presence and its mutual contact with Assamese.
2. Phonemes (Vowel and Consonant Phonemes) (Tones)
4. Vocabulary and its sources.
5. Syntax : Types of sentences, Word order.
6. History of Scripts used in writing Bodo Language since inception.

Section-B

History of Dogri Literature

(Answers must be written in Dogri)

Section-A

Topics from the History of Dogri literature

1. General introduction of Dogri folk literature.
3. Critical analysis of different genre (Poetry, Novel, Short Story and Drama).
4. Translation Literature.

Section-B

History of Bodo Language

(Answers must be written in Bodo)

Section-A

Topics from the History of Bodo language

1. The chronological track from Proto Indo-European to Bodo (Family tree with branches and approximate dates).
2. Historical stages of Bodo (Old, Middle, New) and their linguistic features.
3. Dialects of Bodo and their distinguishing characteristics.
5. Forms of Bodo Literary Prose.
6. Processes of language change relevant for Bangladesh and its neighboring countries.
7. Problems of standardization and reform of alphabets and spelling, and those of transliteration and Romanization.
8. Linguistics, Morphology and Syntax of Modern Bodo.
ENGLISH

The syllabus consists of two papers, designed to test a first-hand and critical reading of text material from the following periods in English literature:


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 in both the prose and verse.

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
   - Lapis Lazuli
   - The Second Coming
   - Byzantium

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:
   - Partitions
   - Musée des Beaux Arts
   - In memory of W.B. Yeats
   - Lay your sleeping head, my love
   - The Unknown Citizen
   - Consider
   - Mundus El Infans
   - The Shield of Achilles
   - September 1, 1939
   - Petition


6. Philip Larkin: The following poems:
   - Please
   - Deceptions
   - Afternoons
   - Days
   - Mr. Bleaney

7. A.K. Ramanujan. The following poems:
   - Looking for a Caesam on a Swing
   - A River
   - Of Mothers, among other Things
   - Love Poem for a Wife I
   - Small-Scale Reflections on a Great House
   - Oblivion
   - (All these poems are available in the anthology Ten Twentieth Century Indian Poets, edited by R. Parthasarathy, 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.


4. E.M. Forster: A Passage to India.

5. Virginia Woolf: Mrs Dalloway.


GUJARATI

Paper I

(Answers must be written in Gujarati)

Section A

1. History of Gujarati Language and Nagari Lipi.

2. Development of Hindi as national Language during freedom movement.

3. Development of the Hindi as a National Language of Union of India.


5. Prominent dialogues of Hindi and their inter-relationship.


Section B

2. History of Hindi Literature.

3. The relevance and importance of Hindi literature and tradition of writing History of Hindi Literature.

4. Literary trends of the following four periods: History of Hindi Literature.

5. Adikali-Sidh, Nath and Raso Sahitya.


11. Adhunik Kabi

a. Renaissance, the development of Prabhat, Bheratendu Mandal.


4. Prominent poets: Mahli Sharan Gupta, Prasad, Nirala, Mahevedi, Dinkar, Agyeya, Mukti Bohag, Dinkar et al.

5. Katha Sahitya

a. Upayans & Realism.

b. The origin and development of Hindi Novels.

c. Prominent Novelist: Premchand, Jainendra, Yashpal, Renu and Hem Sahani.

d. The origin and development of Hindi short story.


Section A

1. History of Hindi Language and Nagari Lipi.

2. Development of Hindi as national Language during freedom movement.

3. Development of the Hindi as a National Language of Union of India.


5. Prominent dialogues of Hindi and their inter-relationship.


Section B

2. History of Hindi Literature.

3. The relevance and importance of Hindi literature and tradition of writing History of Hindi Literature.

4. Literary trends of the following four periods: History of Hindi Literature.

5. Adikali-Sidh, Nath and Raso Sahitya.


11. Adhunik Kabi

a. Renaissance, the development of Prabhat, Bheratendu Mandal.


4. Prominent poets: Mahli Sharan Gupta, Prasad, Nirala, Mahevedi, Dinkar, Agyeya, Mukti Bohag, Dinkar et al.

5. Katha Sahitya

a. Upayans & Realism.

b. The origin and development of Hindi Novels.

c. Prominent Novelist: Premchand, Jainendra, Yashpal, Renu and Hem Sahani.

d. The origin and development of Hindi short story.

C. Modern Kannada literature:

Dasa literature: Purandara and Kanaka.

Vachana literature: Basavanna, Akka Maduban.

Medieval Kannada literature:

Influence and Trends.

D. History of Kannada Language

Ancient Kannada literature:

literary language. (Sanskrit, Prakrit, Avvhat, Maithili, language family.

Modern era)

KANNADA

Paper-I

(Answers must be written in Kannada)

Section-A

A. History of Kannada Language


B. History of Kannada Literature


Dasa literature: Purandara and Kanaka.

Sangataya: Ratnakaravarni

C. Modern Kannada literature:

Influence, trends and ideologies. Navodaya, Pragatihasiya, Nalaya, Dalita and Bandaya.

Section-B

A. Poetics and literary criticism:


B. Cultural History of Kannarta:


(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 abilities of the candidates.

Section-A

A. OLD KANNADA LITERATURE

Vikramakara's Vijaya of Pampa (cottons 12 & 13), (Mysore University Pub.)

Vaddaradhane (Sukramaswamyam, Vidyutcharana Kotane)

B. Medieval Kannada literature:

Vachana: Kamattha, Ed. K. Marulithadadasa K. Nagaraj (Karnataka University, Mangalore)

Jannayay Namakasampada, Ed. D. Javare Gowda (Kannada and Culture Directorate, Bangalore)

Nimmaniyamana Jagade, Ed. T.N. Sreekantanthi (Tel. Varma, Mysore, Grantha Male, Mysope)

Kumaravyasara: Karnata Mysoyre Varni

Bharatesha Vaidhavanga Sankho Ed. Ta. Sura. Shama Rora (Mysore University)

Modern Kannada Literature

Poetry: Hosagandade Kivatan, Ed.: G.H. Nayak (Karnataka Saahitya Parishat, Bangalore)

Novel: Bettada Jeeva-Shivarama Karanta Madhavi-Arunuma Niranjana Odaliala-Devanur Madhava Kanna

Short Story: Kamattha Sanka Kathegalu, Ed. G.H. Nayak (Sahitya Academy, New Delhi)

Drama: Shrutapattap-Kuvempu, Tughlah-Girish Kamnad


B. Folk literature :

Janapada Swaroopa-Dr. H.M. Nayak. (Tel. Samaara Granatha Male, Mysoyre.)


Kanadada Janapada Kathegalu-Ed. J.S. Paramashiviah, (Mysore University)

Beedi Makkalu Beledo, Ed. Kanhana L. Nagaavak (Bangalore University)

Savarida Ogatugalu: Ed. S.G. Ramanaiah

KASHMIRI

Paper-I

(Answers must be written in Kashmiri)

Section-A

A. Genealogical relationship of the Kashmiri language with various tongues. Areas of occurrence and dialects (geographical/social) Phonology and grammar: i. Vowel and consonant system; ii. Nouns and pronouns with various case inflections; ii. Verbs: various types and tenses. Syntax: i. Simple : active and declarative statements; ii. Coordination; iii. Relativisation.

KASHMIRI

Paper-II

(Answers must be written in Kashmiri)

Section-B

1. Kashmiri literature in the 14th century (Sociolinguistic and intellectual background with special reference to Lal Dyad and Sheikshul Alam)

2. Nineteenth century Kashmiri literature: development of various genres: vatsu; ghazal; and mathnavi.

3. Kashmiri literature in the first half of the twentieth century (with special reference to Mahjoor and Azad; various literary influences).


KONKANI

Paper-I

(Answers must be written in Konkani)

Section-A

1. Intensive study of Kashmiri poetry up to the nineteenth century: i) Lal Dyad ii) Sheikshul Alam iii) Habba Khatol

Kashmiri poetry: 19th Century i) Mahmood Gami (Vatsans) ii) Maqbool Shah (Gulse) iii) Rasool Mir (Ghazals) iv) Abdul Ahad Nadim (Nart) v) Krishnashekar Beith (Shiv Lagun)

Sufi Poets (Text in Sanglaq, published by the Deptt. of Konkani, University of Kashmir)

2. Twentieth century Kashmiri poetry (text in Azic Kashmir Shari, published by the Deptt. of Konkani, University of Kashmir) Literary criticism and research work: development and various trends.

Section-B

1. An analytical study of the short story in Kashmiri: i) Afsana Majmu, published by the Deptt. of Konkani, University of Kashmir

ii) Kashur Afsana Az, published by the Sahitya Akademi

iii) Gasumar Afsana Az, published by the Sahitya Akademi

The following short story writers only: Akhtar Mohi-ud-Din, Kamli, Hari Krishan Khand, Hidayat Kehar, Bansi Nirdosh, Gulshan Majid.


b) Old Konkani language and literature: Its role in Konkani literature.

4. Kashmiri poetry: 19th Century

a) Sommero Ghudieo-by Prof. OJF Gomes

b) Old Konkani language and literature: Its role in Konkani literature.

5. Modern prosodic trends in the various genres and regions including a study of Konkani folklore.

1. Bihari: Bihari Ratnakar

2. Dr. Satyendra: Nibandh Nilaya-Bal


5. Savirada Ogatugalu-Ed : S.G. Ramanaiah

6. Sangataya : Ratnakaravarni

Kumar-Vyasa.

7. Yashpal : Divya

8. Phaniswar Nath Renu : Maila Anchal

9. Mannu Bhandari : Mahabhoj

10. Rajendra Yellappa: ED Ek Duna and Samanantar (All Stories)

Paper-II

(Answers must be written in Konkani)

Section-A


2. Nineteenth century Kashmiri literature: 19th Century

3. a) Vajralikhani-Shenoy Goem-bab-Anthology-ed. by Shantaram Varde Valavalkar

b) Kannada: Lalit-Bibhak-Bibhak-Anthology-ed. by Shyam Verenkar

c) Teen Dasakam-Anthology-ed. by Chandrakant Keri.

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

4. Modern prosodic trends in the various genres and regions including a study of Konkani folklore.
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.
6. Maithili Folk Literature (Folk Tales, Folk Drama, Folk Stories, Folk Songs).
7. Development of literary forms in modern era.
   (a) Prabandh-kavya
   (b) Muktab-kavya
   (c) Novel
   (d) Short Story
   (e) Drama
   (f) Essay
   (g) Criticism
   (h) Memoirs
   (i) Translation

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 Chat-Shati-Publisher : Sahitya Akademi, New Delhi (Lyrics – 1 to 50).
2. N. Khelchandra Singh (Ed.) : Old and Medieval Manipuri Literature (Forum Manipur, 1998 ed.).
3. P. Laxman Singh : Kavitastra (Lyrics – 1 to 25).
4. Dr. L. Kamal Singh : Biswa-Prem Thoibi (Thoibi Press, 2006 ed.).
5. N. Kunjamohon Singh : Ijat Tanba (Manipuri Sahitya Parishad, 1994 ed.).
6. S. Krishnamohan Singh : Lan-Geet, Lok-Katha, Lok Natya (San-Senba, 2009 ed.).

Part-B
1. Varna Ratanak : Jyoti Chowk (only 2nd Kaal).
3. S. Lalit Singh : Areppa Marup (The Cultural Forum Manipur, 1999 ed.).

MALAYALAM
Paper-I
(Answers must be written in Malayalam)

Section-A
Unit 1
3. Pattu school-definition, Ramachariti, later pattu works-Niranam works and Krishnagatha.

Section-B
Unit 4
1. Various features of Malayalam: phonology-phonemes, consonants, content, consonant clusters and its occurrence, syllable structure, pattern and types.
2. Morphology: Word-class, root and its types; affix and its types; grammatical categories-genre, number, person, case, tense and aspects, process of compounding (samas and sandhi).

Literary History
Unit 4
2. Various features of Malayalam: phonology-phonemes, consonants, content, consonant clusters and its occurrence, syllable structure, pattern and types.
3. Morphology: Word-class, root and its types; affix and its types; grammatical categories-genre, number, person, case, tense and aspects, process of compounding (samas and sandhi).

Modern Manipuri Literature
(Answers must be written in Manipuri)
The paper will require first-hand reading of the prescribed texts and will test the candidate's critical ability.

Section-A
Unit 1
1. Ramacharitam-Patalam 1.
2. Kannassaramayanam-Balakandam

Unit 2
1. Kumaran Asan-Chintavaythiavaya Sita.
2. Vallioppili-Kudiyohzhikal.
3. G. Sankara Kurup-Perunthachatu.
4. N.V. Krishna Variar-Tivandiyile Pattu.

Unit 3
1. ONV Bhimukkorn Charagamath.
3. Akkittam-Pandatha Messanthi.

Unit 5
1. O. Chanthu Menon-Indulekha.
2. Thakazhi-Chennim.
3. O V Vijayan-Khasakkinte Ithihasam.

Section-B
Unit 1
1. Various features of Malayalam: phonology-phonemes, consonants, content, consonant clusters and its occurrence, syllable structure, pattern and types.
2. Morphology: Word-class, root and its types; affix and its types; grammatical categories-genre, number, person, case, tense and aspects, process of compounding (samas and sandhi).

Modern Manipuri Literature
(Answers must be written in Manipuri)
The paper will require first-hand reading of the prescribed texts and will test the candidate's critical ability.

Section-A
Unit 1
1. Old and Medieval Manipuri Literature
2. Medieval period (18th and 19th century).

Section-B
Unit 1
1. Various features of Malayalam: phonology-phonemes, consonants, content, consonant clusters and its occurrence, syllable structure, pattern and types.
2. Morphology: Word-class, root and its types; affix and its types; grammatical categories-genre, number, person, case, tense and aspects, process of compounding (samas and sandhi).

Modern Manipuri Literature
(Answers must be written in Manipuri)
The paper will require first-hand reading of the prescribed texts and will test the candidate's critical ability.

Section-A
Unit 1
1. Old and Medieval Manipuri Literature
2. Medieval period (18th and 19th century).
The Mahanubhava writers, the Varkari poets, the Pandit poets, the Gujarati poets.

2. From 1850 to 1990, with special reference to developments in the following major forms: Poetry, Fiction (Novel and Short Story), Drama, and modern literature. It will include works of various movements, Romantic, Realist, Modernist, Dalit, Grammar, Feminist.

(b) Literary Criticism
2. Evaluation of Literature.
4. 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
(1) 'Smritishala'
   By Namdev Dhasal
(2) 'Jogaha Binchhe Kothi'
   By Narayan Surve
(3) 'Chhat致力' (Poem) Mera Pakistani
   By Saifery J.S. Neki
(4) 'Shilam'
   By Ravi, Ajaib Kamal
(5) 'Athavaninche Pakshi'
   By Raghunath Pandit
(6) 'Chhandas-1 & 2'
   By Kusumagraj

Paper-I
(Answers must be written in Marathi)

Section-A

1. History of the origin and development of Marathi
2. The following major works: 'Athavaninche Pakshi', 'Brahmankanya', 'Sarvajanik Satyadharma'.

Section-B

Poetry
1. 'Jevha Mi Jaat Chorli Hoti'
   By Sanu Lama
2. 'Athavaninche Pakshi'
   By Ramkrishna Sharma
3. 'Brahmankanya'; 'Sarvajanik Satyadharma'

NEPALI

Paper-I
(Answers must be written in Nepali)

Section-A

1. History of the origin and development of Nepali as one of the new Indo-Aryan Languages
2. Fundamentals of Nepali Grammar and phonology:
   a) Nominal forms and categories: Gender, Number, Case, Adjectives, Pronouns, Adverbs
   b) Verbal forms and categories: Tense, Aspects, Voice, Roots and Fix]
3. (ii) Nepal Swara and Varnana;
4. Major Dialects of Nepal
5. Standardization and Modernisation of Nepal with special reference to language movements (viz. Halanta language movements (viz. Halanta, Bahiskar, Jharrovad etc.)

Section-B

History of Nepali Literature
1. Origin and development of Nepali language with special reference to its development in India
2. Fundamental concepts and theories of literature
5. Nepali folktale (the following folklore form) - Sawai, Jhanyaure, Selo, Sangin, Lahari.

Paper-II
(Answers must be written in Nepali)

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

Poetry
1. 'Sashtang Namaskar'
   By Raghunath Pandit
2. 'Brahmankanya; Sarvajanik Satyadharma'
3. 'Sarvajanik Satyadharma'
4. 'Brahmankanya; Sarvajanik Satyadharma'
5. 'Jevha Mi Jaat Chorli Hoti'
6. 'Suskera').
7. 'Sanskrit Namaskar Ramat Nahi'

Section-B

Sanskrit Namaskar
1. 'Jevha Mi Jaat Chorli Hoti'
2. 'Shilam'
3. 'Jevha Mi Jaat Chorli Hoti'
4. 'Suskera').
5. 'Sanskrit Namaskar'
6. 'Brahmankanya; Sarvajanik Satyadharma'

Odia

Paper-I
(Answers must be written in Odia)

Section-A

1. History of Odia language
2. Origin and development of Odia language
3. Language, dialect and idiom
4. The following major forms: Poetry, Fiction, Prose, Drama, Novels, Essay, Monthly journals.

Section-B

Odia Study
1. Critical study of texts
3. Folk songs, Folk tales.
5. Contemporary Odia writings, Social and political)
6. Language (Western, Southern and Eastern)
7. Common errors in spellings, grammar, and punctuation.
8. Critical analysis (Kishan Singh, Harbhajan Singh, S. S. Sekhar, Chorani Didi)
9. Folklore and Folk songs, Folk tales.
10. Composition (Kishan Singh, Harbhajan Singh, Najam Hussain Sayyad)

Paper-II
(Answers must be written in Odia 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

1. Kalia Mohanty Senapati
2. Surendra Mohanty
3. Ajaib Kamal
4. Prem Singh
5. Najam Hussain Sayyad
6. J.S. Neki
7. Safarnama
8. Duggal, Gurdial
9. Dalip Kaur Tiwana, Swaran Chandan
10. Prem Parkash, Waryam Singh
11. S. S. Sekhar, Atit Singh

Section-B

2. Folk songs, Folk tales.
4. Folklore and Folk songs, Folk tales.
5. Composition (Kishan Singh, Harbhajan Singh, Najam Hussain Sayyad)

Punjabi

Paper-I
(Answers must be written in Punjabi)

Section-A

1. History of the origin and development of Punjabi
2. The following major works: 'Punjabi Sahityakarta', 'Punjabi Sahityakarta', 'Punjabi Sahityakarta'.
4. The valid ness of speech variation on Punjabi
5. Common errors in spellings, grammar, and punctuation.
7. Folklore and Folk songs, Folk tales.
8. Composition (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

1. Shekher Farid
2. Guru Nanak
3. Kulbir Shah
4. S. S. Sekhar, Atit Singh

Section-B

1. Jahangir (Jangang) (Jangang Singh)
2. Mohammad Shah (Mohammad Shah)
3. Ghulam Rassam (Ghulam Rassam)
4. Chhatir (Poet) (Safar Khan)
5. Niranjan (Safar Khan)
6. Guru Nanak (Guru Nanak)
7. Malhar (Malhar)
8. Humayun (Humayun)
9. Safar Khan (Khalal Khan)
10. Rumi (Rumi)
11. Khubachi (Khubachi)
12. Safar Khan (Khalal Khan)
13. Mian Khan (Mian Khan)
14. Khubachi (Khubachi)
15. Safar Khan (Khalal Khan)
16. Rumi (Rumi)
17. Khubachi (Khubachi)
18. Safar Khan (Khalal Khan)
19. Mian Khan (Mian Khan)
20. Khubachi (Khubachi)
Section-A

1. Significant features of the grammar, with particular stress on Sanskrit, Sarndhi, Kanada, Samasa, Kartini and Kamanyaviyas or 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:
       - Mahab kayaka
       - Rupaka (drama)

Katha

4. Essentials of Indian Culture with stress on
   a) Purushartha
   b) Samskara
   c) Varnamatra-vyasavahatra
   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) Jaina
   h) Carvaka

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-B

General study of the following groups:-

Group 1

1) Rhaguvamsam-Kindasa
2) Kumbaramahabhava-Kindasa
3) Kairatarjunyam-Bharavi
4) Sisupalavadham-Magha
5) Naisadhiyacaritam-Srinsreads
6) Kadambari-Banabhatta
7) Dasakumaramcharitam-Dandin
8) Sirvaiyodjayam-S.B. Venkara

Group 2

a) Asvayogyapnashad
b) Magvagadlight
3) Sundarakanda of Valmiki's Ramayana
4) Ardrasatha of Kautiya

Group 3

1) Saptavamsavadatmam-Bhasa
2) Abhijinashakuntalam-Magha
3) Mrchakata-Sudraka
4) MudrakaMsam-Vishakvatadatta
5) Uiltararamacharitam-Bhavabhuti
6) Ratnavali-Srinivarshadhavanaha
7) Venisamharam-Bhattanarayana

Group 4

1) Short notes in Sanskrit on the following:-
   a) Meghadutam-Kindasa
   b) Nitisatakam-Bhartrhari
   c) Kadambari-Banabhatta
   d) Rajatarangini-Kathana
   e) Harsacaritam-Banabhatta
   f) Amarakosatakam-Amarakpa
   g) Gitaigvindam-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 texted texts:

Group 1

1) Amarakosatakam-Kindasa, Verses 1 to 10
2) Kumaramahabhava-Kindasa, Verses 1 to 10
3) Kamatarjunyam-Kindasa, Verses 1 to 10
4) Saptavamsavadatmam-Bhasa, Verses 1-2, 4, 6, 7, 15 and 18
5) Bhagavatgita chapter verses 13 to 26

Group 2

1) Meghadutam-Kindasa, Verses 1 to 10
2) Gitagovindam-Jayadeva
3) Panchtantra-
4) Kadambari-Banabhatta
5) Abhijnanasakuntalam- Kalidasa
6) Svapnavasavadattam- Bhasa
7) Sisupalavadham-Magha
8) Venisamharam- Bhattanarayana
9) Dhoti Surgu Biniti Kantilal Naredhar

Section-A

1. Question from Group 1 is to be answered in Sanskrit. The remaining questions may be answered in English.
2. C. Ramakrishna
3. Devi Dasain Sereng
4. Raghuraj Baha Mala
5. Jomsim Binti Lita
6. More Sin More Nida
7. Baha Sereng
8. Mayajaal

Section-B

Modern Literature

Part-I: Poetry

1. Anmiha Bha Dhallak-Paul Julaj Soren.
3. Chand Mala-Gora Chand Thadu.
4.Onto Baha Maladi-Aditya Mitra

Part-II: Novels

3. Ato Ora-Doman Hansda.
4. Oyag Gada Chhchin-Nathenial Murmu.

Part-III: Stories

1. Kherwar Bir-Pandit Raghunath Murmu.
2. Baha Sereng-Balaram Tudu
4. Rishon Ran-Thakur Prasad Murmu.

Part-I: Poetry

1. Amarakosatakam- Bhasa, Verses 1 to 10
2. Gitagovindam-Jayadeva
3. Panchtantra-
4. Kadambari-Banabhatta
5. Abhijnanasakuntalam- Kalidasa
6. Svapnavasavadattam- Bhasa
7. Sisupalavadham-Magha
8. Venisamharam- Bhattanarayana

Section-B

1. Question from Group 2 is to be answered in Sanskrit. The remaining questions may be answered in Sanskrit.
2. Kesthimunshi
3. Srikrisna
4. Jomsim Binti Lita
5. More Sin More Nida
6. Baha Sereng
7. Mayajaal

Part-II: Novels

3. Ato Ora-Doman Hansda.
4. Oyag Gada Chhchin-Nathenial Murmu.

Part-III: Stories

1. Kherwar Bir-Pandit Raghunath Murmu.
2. Baha Sereng-Balaram Tudu
4. Rishon Ran-Thakur Prasad Murmu.
Part: 1 Ancient Literature
(1) Kuruntokai (1-25 poems)
(2) Garuda Purana (182-200 poems)
(3) Tirukkural Porutal: Arasaiyal Amachiyalum (from Iraimatchi to Avariyanam)
Part: 2 Epic Literature
(1) Ballads, Balli-Thonmam (Myth)
(2) Otturuvagam (allegory), Angadam (erotic poetry)
(3) Raghunatha Nayaka, Chemakura Tyagayya.
Part: 3 Devotional Literature
(1) Dravida Astakhrams - Devotional language and its influence
(2) Majestic changes in phonological, morphological, grammatical and syntactic structures of the Tamil language.
(3) Bhakti poets in Telugu literature - a) Genres and their development: (i) Religious and devotional fiction b) Social and Cultural roots of Telugu literature
Part: 4 Modern Literature
(1) Mu. Varadharajan: Aravum Kadhal (31 poems)
(2) C N Annadurai: Vel Thazhvna Tamiligane
Part: 5 Novel, Short story and Drama
(1) Adik: Chinniappai
(2) Jayakanth: Gurupedam
(3) Cho: Varukkum Verkamai
Part: 3 Folk literature in Tamil:
(1) Mariappan Kathai Edited by Na. Vanamamalai
(2) Thyagarajan: Vedaiyangal
(3) Jayakanth: Kudiyiru (Publication: Madura Kambar University)
Part: 1 Devotional literature (Alwars and Nayamamars) The bhakti mysticins in Alwar hymns-Minor literary forms (Tutu, Ula, Parani, Kuravangi)
Part: 2 Folk literature in Tamil: Ballads, Songs, proverbs and riddles-Sociological study of Tamil folklore. Uses of translation-Translation of Telugu works into other languages-Development of journalism in Tamil.
Part: 3 Cultural Heritage of the Tamils
1. Concept of Love and War-Concept of social order
2. Concept of Comparative literature- the principle of comparative literature
3. Social factors for the development of Tamil literature
4. Concept of Love and War-Concept of social order
5. Social factors for the development of Tamil literature
6. Concept of Comparative literature- the principle of comparative literature
7. Concept of Love and War-Concept of social order
8. Concept of Comparative literature- the principle of comparative literature

Part: 2 Literary Development
(1) Akilon: Chittirappavai
(2) Tiruppavai: (Full Text)
(1) Tiruvasagam: Neetthal Vinnappam
(2) Malaiyaruvi, Edited by Ki. Va Jayakanth: Gurupeedam
(2) Tiruppavai: (Full Text)
(1) Tiruvasagam: Neetthal Vinnappam
(2) Modern Literature
Part: 1 Poetry
(1) Bharathiar: Kannan Pattu
(2) Meenakshi Sundaram: Kudumba Vallkku
(3) Naa. Kamarasan: Karuppai Malar
(1) Mu. Varadharajan: Aravum Kadhal
(2) C N Annadurai: Vel Thazhvna Tamiligane
Part: 2 Novel, Short story and Drama
(1) Adik: Chinniappai
(2) Jayakanth: Gurupedam
(3) Cho: Varukkum Verkamai
Part: 3 Folk literature in Tamil:
(1) Mariappan Kathai Edited by Na. Vanamamalai
(2) Thyagarajan: Vedaiyangal
(3) Jayakanth: Kudiyiru (Publication: Madura Kambar University)

Part: 1 Recent trends in Tamil Studies
Approaches to criticism: Social, psycho -linguistic and sociological
Part: 2 Folk literature in Tamil: Ballads, Songs, proverbs and riddles-Sociological study of Tamil folklore. Uses of translation-Translation of Telugu works into other languages-Development of journalism in Tamil.

Part: 3 Cultural Heritage of the Tamils
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5. Social factors for the development of Tamil literature
6. Concept of Comparative literature- the principle of comparative literature
7. Concept of Love and War-Concept of social order
8. Concept of Comparative literature- the principle of comparative literature

Part: 4 Modern Literature
(1) Mu. Varadharajan: Aravum Kadhal
(2) C N Annadurai: Vel Thazhvna Tamiligane
Part: 5 Novel, Short story and Drama
(1) Adik: Chinniappai
(2) Jayakanth: Gurupedam
(3) Cho: Varukkum Verkamai
Part: 3 Folk literature in Tamil:
(1) Mariappan Kathai Edited by Na. Vanamamalai
(2) Thyagarajan: Vedaiyangal
(3) Jayakanth: Kudiyiru (Publication: Madura Kambar University)

Part: 1 Poetry
(1) Bharathiar: Kannan Pattu
(2) Meenakshi Sundaram: Kudumba Vallkku
(3) Naa. Kamarasan: Karuppai Malar
(1) Mu. Varadharajan: Aravum Kadhal
(2) C N Annadurai: Vel Thazhvna Tamiligane
Part: 2 Novel, Short story and Drama
(1) Adik: Chinniappai
(2) Jayakanth: Gurupedam
(3) Cho: Varukkum Verkamai
Part: 3 Folk literature in Tamil:
(1) Mariappan Kathai Edited by Na. Vanamamalai
(2) Thyagarajan: Vedaiyangal
(3) Jayakanth: Kudiyiru (Publication: Madura Kambar University)

Part: 1 Recent trends in Tamil Studies
Approaches to criticism: Social, psycho -linguistic and sociological
Part: 2 Folk literature in Tamil: Ballads, Songs, proverbs and riddles-Sociological study of Tamil folklore. Uses of translation-Translation of Telugu works into other languages-Development of journalism in Tamil.

Part: 3 Cultural Heritage of the Tamils
1. Concept of Love and War-Concept of social order
2. Concept of Comparative literature- the principle of comparative literature
3. Social factors for the development of Tamil literature
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7. Concept of Love and War-Concept of social order
8. Concept of Comparative literature- the principle of comparative literature

Part: 4 Modern Literature
(1) Mu. Varadharajan: Aravum Kadhal
(2) C N Annadurai: Vel Thazhvna Tamiligane
Part: 5 Novel, Short story and Drama
(1) Adik: Chinniappai
(2) Jayakanth: Gurupedam
(3) Cho: Varukkum Verkamai
Part: 3 Folk literature in Tamil:
(1) Mariappan Kathai Edited by Na. Vanamamalai
(2) Thyagarajan: Vedaiyangal
(3) Jayakanth: Kudiyiru (Publication: Madura Kambar University)
6. Marketing Management: Concept of marketing; Marketing strategy formulation and components of marketing plan; Segmenting and targeting the market; Positioning and differentiating a product and service; Channel offering; Analyzing competition; Analyzing customer 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 horizontal marketing.

PAPER – II

1. Quantitative Techniques in Decision Making

1.1 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, inferential statistics - hypothesis testing - one sample t-test, two sample t-test, 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, production control - batch size and scale of operations, Management of facilities; Line balancing; Equipment replacement and maintenance; Quality management - vendor evaluation and audit; Quality management - Statistical process control, Six Sigma, Flexibility and agility in manufacturing systems; Just-in-time class manufacturing; Project management concepts, R&D management, Management of service operations; Role and importance of services in India; Service 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; Overview of systems and design; System development management life-cycle, Designing for online and distributed environments; Requirements engineering; Project management - problem formulation, simple method and graphical solution, sensitivity analysis.


5. Strategic Management: Business policy as a field of study; Nature and scope of strategic management; Strategic and operational 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, diversification; Concept of core competence, Strategic flexibility; Reinventing strategy; Strategy statement: CII Expert Panel; Turnaround management; Management of strategic change; Strategic alliances, Mergers and acquisition, Corporate strategy and corporate evolution in the Indian context.

6. International Business: International Business Environment: Introduction to international business and services; India’s Foreign Trade: Policy and trends; Financing of international trade; Regional Economic Cooperation; External Trade; Trade and 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; Strategic planning; Global strategies; Export Management; Export import procedures; Joint Ventures; Foreign Investment: Foreign direct investment and its host country, Foreign Investment: Host country, Cross-border Mergers and Acquisitions; Foreign Exchange Risk Exposure Management; World Financial Markets; Financial Institutions; International Financial Systems: External Debt Management; Country Risk Analysis.

MATHEMATICS

PAPER - I

1. (1) Linear Algebra: Vector space 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, Systems of linear equations; Eigenvalues and eigenvectors, characteristic polynomial, Cayley-Hamilton theorem, Symmetric, skew-symmetric, 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, gamma and beta functions, Double and triple integrals (evaluation techniques only); Areas, surface and volumes.

(3) Analytic Geometry: Equations of a straight line, standard forms of conics in two dimensions, second degree equations in two variables, reduction to canonical forms, straight lines, shortest distance between two skew lines and between a line and a plane, Sphere, cylinder, paraboloid, ellipsoid, hyperboloid of one and two sheets and their properties.

(4) Differential Equations: Formulation of differential equations; Equations of first order and first degree, integrating factor; Orthogonal trajectories; Equations of first order but not of first degree, Clairaut’s equation, singular solution.

Second order and higher order linear equations with constant coefficients, complemental 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.

Inverse of a matrix, inverse of a sum of matrices, inverse of a product of a symmetric matrix and its transpose, inverse of a square matrix that is not symmetric; 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, uniform circular motion, constrained motion; Work and energy, conservation of energy; Kepler’s laws, orbits under central forces.

(6) Vector Analysis: 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, normal subgroups, homomorphism, quotient groups, subgroups, quotient groups, homomorphism of groups, basic isomorphism theorems, permutation groups, Cayley’s theorems.

Rings, subrings and ideals, homomorphisms of rings; Integral domains, principal ideal domains, Euclidean domains and irreducibles, principal quotient fields.

(2) Real Analysis: Real number system as an ordered field, deduction from first principles; Upper bound property; Sequences, limit of a sequence, Cauchy sequence, completeness of real line; Series and its convergence, absolute and conditional convergence, Cauchy’s convergence criterion, real and complex term, rearrangement of series.

Uniform 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 functions, 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 in two and three variables. Duality; Transportation and assignment problems.


(6) Numerical Analysis and Computer programming: 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. homework of computer backward, interpolation, Laplace’s intergration.

Numerical integration: Trapezoidal rule, Simpson’s rules, Gaussian quadrature formulae.


Computer Programming: Binary system; Arithmetic and logical operations on numbers; Octal and Hexadecimal systems; Conversion to and from decimal systems; Algebraic and logical operations on numbers; Elements of computer systems and concept of memory; Basic logic gates and truth tables, Boolean algebra, normal and minimised 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; Momentum and Momentum equations; Hamilton equations; Moment of inertia; Motion of rigid bodies in two dimensions. Equation of continuity; Euler’s equation of motion for incompressible flow; Stream function 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; principal axes and moments of inertia; Moments of areas of particles for plane motion; elementary particle dynamics.

1.2 Mechanics of deformable bodies: Generalised Hooke’s law and its application; design problems on axial stress, shear stress and bearing stress; material properties for dynamic loading; bending stress and stresses due to bending, determination of principle stresses and strains - analytical and graphical; compound and combined stresses; bi-axial stresses - the stress field and its representation; behaviour and design factors for dynamical load; design of circular shafts for bending and torsional load only; deflection of beams for statically determinate problems; theories of failure.

2. Engineering Materials: Basic concepts on structure of solids;
Knowledge; Substance; God; Mind-Body Dualism; Determinism and Freedom.

7. Religion with a Will.
8. Religion and Morality.
10. Different Religious Language: Analogical and Symbolic; Cognitivist and Non-cognitive.

PHYSICS
PAPER - I
(a) Electrodynamics of Particles: Laws of motion; conservation of energy and momentum, applications to rotating frames, centripetal and Coriolis accelerations; Motion in a gravitational central force; Conservation of angular momentum; Kepler’s laws; Fields and potentials; Gravitational field and potential due to spherical bodies; 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 and angular momentum; Elastic and inelastic collisions; Rigid body; Degrees of freedom, Euler’s theorem; Angular velocity, angular momentum, moments of inertia, theorems of parallell and perpendicular axes, equation of motion for rotation; Molecular rotations (gas); Di and tritatomic molecules; Precessional motion; top, gyroscope.
(c) Mechanics of Continuous Media: Classical, Hamiltonian and Lagrangian constants of isotropic solids and their interaction; Streamline (Laminar) flow, viscosity, Poiseuille’s equation, Bernoulli’s equation and applications.
(d) Special Relativity: Michelson-Morley experiment and its implications; Lorentz transformations—length contraction, time dilation; 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 velocity; Reflection, 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: Intference 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 aperatures.
(e) Polarization and Modern Optics: Production and detection of linearly and circularly polarized light; Double refraction, nematic liquid crystals; Optical properties of fibre optics, attenuation; Pulse dispersion in step index and para- bolic 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. Electromagnetism and Simple Applications:
(a) Electromechanics and Magnetostatics: Laplace and Poisson equations in elec- trostatics and their applications; Energy of a system of charged bodies; Conserva- tion of scalar potential; Method of images and its applications; Potential and field due to a dipole, force and torque on a dipole; Electromagnetic induction; Diel- ectric polarization; Solutions to boundary-value problems-conducting and dielectric spheres in a uniform electric field; Maxwell’s equations, formally magnetized sphere; Ferromagnetic materials, hysteresis, energy loss.
(b) Current Electricity: Laws of Ohm’s applications; Biot-Savart law, Ampère’s law, Faraday’s law, Lenz’ law; Self-and mutual-induc- tances; Mean and r.m.s values in AC cir- cuits; DC and AC circuits with R, L and C components; Series and parallel reso- nances; Quality factor; Principle of trans- formers.
(c) Electromagnetic Waves and Blackbody Radiation: Displacement current and Maxwell’s equations; Wave equations in vacuum, the wave equation, theoretical potentials; Electromagnetic field tensor, covariance of Maxwell’s equations; Wave equations in isotropic dielectrics, reflec- tion and refraction at the boundary of two dielectric media; Diffuse reflection and refrac- tional normal; Normal and anomalous dis- pension; Rayleigh scattering; Blackbody radiation; Planck’s radiation law; Stefan-Boltzmann law, Wien’s displacement law and Rayleigh-Jeans’ law.
4. Thermal and Statistical Physics:
(a) Thermodynamics: Laws of macroscopics, reversible and irreversible processes, entropy; Isothermal, adiabatic, isochoric, isobaric processes; Charles law, Gay-Lussac law 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 pheno- mena, equipartition and virial theo- rems; Dulong-Petit, Einstein and Debye’s theories; Specific heat of solids; Maxwell relations and applica- tions; Clausius-Clapeyron equation; Adiabatic demagnetisation, Joule-Kelvin law and liquefaction of gases.
(b) Statistical Physics: Macro and micro states, statistical distribu- tions, Maxwell-Boltzmann, Bose-Einstein distribution, Mie’s distribution, specific heat of solids; Maxwell relations and applica- tions; Clausius-Clapeyron equation; Adiabatic demagnetisation, Joule-Kelvin law and liquefaction of gases.

POLITICAL SCIENCE AND INTERNATIONAL RELATIONS
PAPER - I
1. Political Theory and Indian Politics:
1. Political Theory: meaning and scope.
2. Theories of the State: Liberal, Neo-lib- eral, Marxist, Pluralist, Post-colonial and feminist.
4. Equality: Social, political and econom- ical equality and freedom; Affirmative action.
5. Rights: Meaning and theories; different kinds of rights; concept of Human Rights.
6. Comparative Political Theories: different models of democ- racy—representative, participatory and deliberative.
7. Concept of power, hegemony, identity and legitimacy.
8. Political ideologies: Liberalism, Socialism, Marxism, Fascism, Gandhism and Feminism.
11. Indian Government and Politics: Indian Nationalism:
(a) Political Strategies of India’s Freedom
PSYCHOLOGY  

PAPER - I  

Foundations of Psychology  

1. Introduction  
2. Information Processing  
   a. Types of memory: Sensory memory, short-term memory, and long-term memory.  
   b. Attention: Definition, selective attention, divided attention, and sustained attention.  
   c. Perception: Sensory reception, neural processing, and perceptual experience.  

3. Learning  
   a. Operant conditioning: Reinforcement schedules, punishment, and extinction.  
   b. Classical conditioning: Pairing of stimuli, extinction, and generalization.  

4. Development  
   a. Infancy: Motor development, attachment, and cognition.  
   b. Early Childhood: Peer relationships, academic achievement, and language development.  
   c. Adolescence: Identity formation, peer group pressures, and emerging adulthood.  
   d. Adulthood: Career development, family roles, and social change.  

5. Personality  
   a. Theories of personality: Psychoanalytic, humanistic, cognitive, and social-learning approaches.  
   b. Assessing personality: Dispositional measures, psychometrics, and clinical assessments.  

6. Motivation and Emotion  
   b. Emotion: Basic emotions, facial expressions, and cross-cultural perspectives.  

7. Cognition  
   a. Attention: Selective, divided, and sustained attention.  
   b. Memory: Long-term memory, working memory, and retrieval processes.  
   c. Language: Comprehension, production, and cross-linguistic differences.  

8. Psychological Assessment  
   a. Psychological testing: Normative and non-normative tests.  
   b. Evaluation: Counseling, therapy, and decision-making processes.  

9. Research Methods  
   a. Experimental design: Independent and dependent variables, control groups, and experimental controls.  

10. Psychological Issues and Applications  
   a. Clinical Psychology: Diagnosis, treatment, and prevention of psychological disorders.  
   b. Educational Psychology: Learning styles, educational interventions, and academic success.  

11. Personality  
   a. Definition and concept of personality: Characteristics, traits, and psychological constructs.  
   b. Theories of personality: Psychoanalytic, humanistic, cognitive, and social-learning approaches.  

12. Developmental Psychology  
   b. Developmental challenges: Physical, cognitive, social, and emotional changes.  

13. Motivation and Emotion  
   b. Emotion: Basic emotions, facial expressions, and cross-cultural perspectives.  

14. Psychological Assessment  
   a. Psychological testing: Normative and non-normative tests.  
   b. Evaluation: Counseling, therapy, and decision-making processes.  

15. Research Methods  
   a. Experimental design: Independent and dependent variables, control groups, and experimental controls.  

16. Psychological Issues and Applications  
   a. Clinical Psychology: Diagnosis, treatment, and prevention of psychological disorders.  
   b. Educational Psychology: Learning styles, educational interventions, and academic success.  
lenged persons including old persons, Rehabilitation of persons suffering from substance abuse, juvenile delinquency, crime and criminal behaviour; Rehabilitation of vic-
tims of violence, Rehabilitation of HIV/AIDS victims, the role of social agen-
cies.
8. Application of Psychology to disad-
antaged groups: The concepts of disadvantaged, depriv-
ation, discrimination, relative deprivation and econ-
omic consequences of disadvantaged and deprived groups; Education and motivating the disadvantaged towards development and a Non-violent society.
9. Psychological problems of social inte-
tegration: The concept of social integration; The problem of caste, class, religion and lan-
guage conflicts and prejudice; Nature and man-
ifestation of prejudice between the in-group and out-group; Cultural factors of social con-
flicts and prejudices; Psychological strategies for handling the conflicts and prejudices; Measures to achieve social integration.
10. Application of Psychology in Informa-
tion Technology and Mass Media: The present scenario of the information tech-
nology and the mass media boom and the role of psychologists; Selection and training of psychological professionals to work in the field of IT and mass media; Distance learning through IT and mass media; Entrepreneurship through e-com-
merce; Multilevel marketing; Impact of TV and satellite media on IT and mass media; Psychological conse-
quences of recent developments in Information Technology.
11. Psychology and Economic devel-
oment: Achievement motivation and economic develop-
ment; Characteristics of entrepre-
nership behaviour; Motivating and training people for entrepreneurship and econo-
ic development; Consumer rights and consumer awareness, Government poli-
cies for promotion of entrepreneurship and emplo-
yee youth including women entrepre-
neurs.
12. Application of psychology to envi-
ronmental problems: Psychological problems of pollution and national and inter-
national aspects of environmental-problems; Environmental psychology-effects of pol-
lution; Environmental psychology-effects of noise, pollution and crowding; Population psychology: psychological consequences of population explosion and high popula-
tion growth; Psychological implications of small family norm; Impact of rapid scientific and tech-
nological growth on degradation of envi-
ronmental equilibrium.
13. Application of psychology in other fields:
(a) Military Psychology Devising psychological tests for defence personnel, use in selection, training, Counseling: training psychologists to work with defence personnel in promoting posi-
tive human behaviour; Engineering human engineering in defence.
(b) Sports Psychology Psychological interventions in improving performance of athletes and sports. Persons participating in Individual and Team Games.
(c) Media influences on pro and antisocial be-
haviour.
(d) Psychology of terrorism.
14. Psychology of Gender: Issues of discrimination, Management of diversity and sexual effect. Self fulfill-
ing prophecies, Women and Indian society, discrimi-

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 theory; New Public Management; Dimensions of liberalization; Privatization, Globalisation; Good Governance: concept and application; New Public Management.
2. Administrative Thought:
(a) Scientific Management and Scientific Management movement; Classical Theory; Weber’s bureaucratic model – its limitations; Weberian Bureaucracy and 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).
(b) Administrative Behaviour:
Process and techniques of decision-making; Communication; Morale; Motivation Theories – content, process and contem-
porary theories; Theories of Leadership: Traditional and Modern.
3. Organisations:
Theories – systems, contingency; Structure and form: Ministries and Departments, Corporations, Companies, Boards and Commissions; Ad hoc and advisory bodies; Headquartered and Field organisations; Governmental, Public - Public Partnerships.
4. Accountability and control:
Concepts of accountability and control; Legislative, Executive, Judicial control over administration; Citizen and Administration; Role of media, interest groups, voluntary organisations; Civil society and Citizen’s Charter; Right to information; Social audit.
5. Administrative Law:
Meaning, scope and significance; Dicese on Administrative law; Delegated legisla-
tion; Administrative Law and its impact on the fairer society.
6. Comparative Public Administration:
Historical and sociological factors affect-
ing public administration; Administration and politics in different countries; Current status of Comparative Public Administration; Ecology and administration; Riggian models and their critique.
7. Development Dynamics:
Concept of development; Changing pro-
cesses of development; Types of develop-
ment 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.
8. Administ rates:
(a) Theory: Historical background; the develop-
ment; Recruitment, training, career advancement, position classification, dis-
cipline, performance appraisal, promo-
tion, pay and service conditions; employ-
er-employee relations; Justice redres-
sal mechanism; Code of conduct; Administrative ethics.
(b) Policy: Models of policy-making and their cri-
iq; Processes of conceptualisation, planning, implementation, monitoring, evaluation and review of their limita-
tions; State theories and public policy for-
mulation.
9. Administrative Reform:
Organisation and methods, Work study and work management; e-governance and information technology; Management of Information system like network analysis, MIS, PERT, CPM.
10. Financial Administration:
Monetary and fiscal policies; Public bor-
rrowings and public debt Budgets - types and forms; Budgetary process; Financial accountability; Accounts and audit.

PAPER II

Indian Administration
1. Evolution of Indian Administration:
Kautiya’s Arthaashastra; Maghun adminis-
tration; Legacy of British rule in pol-
in management - liberalization of pub-
lc services, revenue administration, dis-

tric administration, local self-govern-
ment.
2. Philosophical and Constitutional framework of government:
Safeguard features and value premises; Constitutionalism; Political culture; Democracy and Socialism; Bureaucracy and development.
3. Public Sector Undertakings:
Public sector in modern India; Forms of Public Sector Undertakings - public ownership, autonomy, accountability and control; Impact of liberalization and privatization.
4. Union Government and Administration:
Executive, Parliament, Judiciary - struc-
ture, functions, work processes; Recent trends; Intragovernmental relations; Cabinet Secretariat; Prime Minister’s Office; Central Secretariat; Ministries and Departments; Boards; Commissions; Attached offices; Field organisations.
5. Plans and Priorities:
Machinery of planning, Role, composition and functions of the Planning Commission and the National Development Council; Role in 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:
State administrative, legislative and financial relations; Role of the Finance Commission; Governor; Chief Minister; Council of Ministers; Chief Secretary; State Secretariat; Secretariat systems; Attached offices; Field organizations.
7. District Administration since Independence:
Changing role of the Collector; Union-state-local relations; Imperatives of development management and law and order administration; District administra-
tion and democratic decentralization.
8. Civil Services:
Constitutional position; Structure, recruit-
ment, training and capacity-building; Mandate, functions, work processes, recruit-
ment of personnel and control over administration; Citizen and Administration; Role of media, interest groups, voluntary organisations; Civil society and Citizen’s Charter; Right to information; Social audit.
9. Administrative Reforms since Independence:
(a) Major concerns; Important Committees and Commissions: Reform in public administration and human resource develop-
ment; Problems of implementation.
(b) New Rural Development:
(a) Challenges of rural growth; New rural growth; Village reforms; National rural policy; Performance norms.
(b) Administrative Reforms since independence:
Major concerns; Important Committees and Commissions: Reform in public administration and human resource develop-
ment; Problems of implementation.
9. Rural Development:
Institutional arrangement and their performance; National Rural Policy Commission; Investigative agencies; Role of central and state agencies includ-
ing paramilitary forces in maintenance of law and order and countering insurgency and terrorism; Criminalization of politics and administration; Police-public rela-
tions.
10. Significant issues in Indian Adminis-
tration:
Values in public service; Regulatory bodies; National Human Rights Commission; Problems of administration in coalition regimes; Citizen-administra-
tion interface; Corruption and administra-
tion; Disaster management.

SOCIOLOGY

PAPER - I

FUNDAMENTALS OF SOCIOLOGY

1. Sociology - The Discipline:
(a) Modernity and social changes in Europe and emergence of sociology.
(b) Scope and limits of sociology in comparison with other social sciences.
(c) Sociology and common sense.

2. Sociology as Science:
(a) Science, scientific method and critique.
(b) Positivism and its critique.
(c) Fact value and objectivity.
(d) Non- positivist methodologies.

3. Research Methods and Analysis:
(a) Qualitative and quantitative meth-
ods.
(b) Techniques of data collection.
(c) Variables, sampling, hypothesis, the nature of social

4. Sociological Thinkers:
(a) Karl Marx- Historical materialism, mode of production, alienation, class structure.
(b) Emile Durkheim: Division of labour, social fact, suicide, religion and soci-
ty.
(c) Max Weber: Social action, ideal types, authority, bureaucracy, protest ethic and the spirit of cap-
thalism.
(d) Talcott Parsons: Social system, pattern variables.
(e) Robert K. Merton: Latent and mani-

5. Stratification and Mobility:
(a) Concepts- equality, inequality, hier-
archy, exclusion, poverty and depa-

(b) Theories of social stratification- Structural functionalist theory, Marxian theory, Bourdieu.
(c) Dimensions – Social stratification of class, status groups, gender, ethnic-
ity and race.
(d) Social mobility- open and closed systems, types of mobility, sources and causes of mobility.

6. Works and Economic Life:
(a) Concepts: Modes of production in differ-
ent types of society- slave society, feudal society, industrial capitalism.
(b) Forms and informal organization of work.

7. Politics and Society:
(a) Political life and institutions of power.
(b) Power elite, bureaucracy, pressure groups, and political parties.
(c) Nation, state, citizenship, democra-
ty and democracy.
(d) Protest, agitation, social move-
ts, collective action, revolution.

8. Religion and Society:
(a) Historiography of religion.
(b) Types of religious practices: ani-
mism, monism, pluralism, sects, cults.
(c) Religion in modern society: religion and science, secularization, reli-
gious revivalism, fundamentalism.

9. Systems of Kinship:
(a) Family, household, marriage.
(b) Types and forms of family.
2. Ecology:
   (a) Biosphere: Concept of biosphere; biomes, Biogeochemical cycles, Human induced changes in atmos-
   phere including green house effect, ecological succession, biomes and ecotones, community ecology.
   (b) Concept of ecosystem; structure and function of an ecosystem, types of ecosystem, ecological succession, ecological adaption.
   (c) Population; characteristics, popula-
   tion dynamics, population stabiliza-
   tion, migration.
   (d) Biodiversity and diversifica-
   tion of natural resources.
   (e) Wildlife management.
   (f) Remote sensing for sustainable development.
   (g) Environmental biodegradation, pol-
   lution and its impact on biosphere and its prevention.

3. Ethology:
   (a) Behaviour: Sensory filtering, repon-
   sive nature, learning and memory, instinct, habituation, conditioning, imprinting.
   (b) Role of hormones in drive; role of pheromones (sex pheromones, alarm pheromones) in growth, stress, crypsis; predator detection, predator tactics, social hierarchies in pri-
   mates, social organization in insects.
   (c) Orientation, navigation, homing, bio-
   logical clock, tidal, seasonal and circadian rhythm, sensory organs and their mechanisms.
   (d) Methods of studying animal behav-
   iour including sexual conflict, selfish-
   ness, kinship and altruism.

4. Economic Zoology:
   (a) Fishes: Respiration, locomotion and repro-
   duction.
   (b) Amphibia: Origin of tetrapods, parental care, paedogenesis.
   (c) Reptilia: Examples of reptiles and pri-
   mates, endocrine glands (pituitary, thyroid, parathyroid, adrenal, pancre-
   as, gonads) and their interrela-
   tionships.
   (d) Echinodermata: Feeding, respira-
   tion, locomotion, larval forms, gener-
   al features and life history of Branchiostoma and Herdmania.
   (e) Pisces: Origin of fishes, bony fish,
   evolution, migration.
   (f) Mammalia: Origin of mammals, dentition, general features of egg laying mammals, pouched-mam-
   mals, marsupial and non-marsupial mammals; various body structures.
   (g) Aves: Origin of birds, flight adapta-
   tion, migration.
   (h) Mammals: General features, life history of Branchiostoma and Herdmania.

5. Biostatistics:
   (a) Design and conduct of experiments; null hypothesis, correlation, regression, distribution and measure of central tendency, chi square, student-test, F-test (one-way & two-way F-test).
   (b) Instrumentation Methods:
      (a) Spectrophotometer, phase contrast and fluorescence microscopy, radioactive tracers, ultra centrifuge, gel electrophoresis, PCR, ELISA, Western blotting, RFLP, RAPD, AFLP.
      (b) Electron microscope (TEM, SEM).

PAPER - II

1. Cell Biology:
   (a) Cell: the unit and function of cell and its organelles (nucleus, plasma mem-
   brane, mitochondria, Golgi bodies, endoplasmic reticulum, ribosomes, and lysosomes; cell division, cell division (mito-
   biosis and meiosis), mitotic spindle and mitotic apparatus, chromosome movements, chromosome type poly-
   tene and lamellar, organization of chromatin, heterochromatin, Cell cycle regulation.
   (b) Nucleic acid topology. DNA motif, DNA replication, transcription, RNA processing, translation, protein fold-
   ings and transport.

2. Genetics:
   (a) Genetic concept of gene, split gene, gen-
   etic regulation, genetic code.
   (b) Sex chromosomes and their evolu-
   tion, sex determination in Drosophila melanogaster.
   (c) Mendel’s laws of inheritance, recom-
   bination, linkage, multiple alleles, genetic laws of blood groups, pedigree analysis, hereditary diseases in man.

3. Evolution:
   (a) Theories of origin of life.
   (b) Theories of evolution: Natural selection, role of evolution in succes-
   sional pathways, molecular evolution, molecular theory of evolution.
   (c) Evolution of horse, elephant and man using fossil data.
   (d) Concepts of adaptation, adaptation and evolution.
   (e) Concepts of speciation, speciation and extinction.

4. Systematics:
   (a) Zoological nomenclature, interna-
   tional code, cladistics, molecular taxonomy and biodiversity.

5. Biochemistry:
   (a) Structure and role of carbohydrates, fats, fatty acids and cholesterol, pro-
   teins and amino-acids, nucleic acids, enzymes, vitamins.
   (b) Glycolysis and Kreb cycle, oxidation and reduction, oxidative phosphory-
   lation, anaerobic conservation and release, ATP cycle, cyclic AMP – 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 refer-
   ence to mammals):
   (a) Composition and constituents of blood; blood groups and Rh factor in man, factors and mechanisms of coagulation, iron metabolism, acid-
   base balance, thermo-regulation, antiocoagulants.
   (b) Heart and circulatory system, lungs and respiratory system, digestive system, liver and liver function, nervous system, endocrine system.
   (d) Tonicity, osmotic pressure, osmo-regulation and excretion of urine.
   (e) Nuts, muscles: mechanism of con-
   traction of skeletal muscles, effects of exercise on muscles.
   (f) Neurotransmitters: – its con-
   duction and symmetric transmission, neurotransmitters.
   (g) Vision, hearing and olfaction in man.
   (h) Physiology of reproduction, puberty and menopause in human.

7. Developmental Biology:
   (a) Embryology: spermatogenesis, composition of semen, in vitro and in vivo capacitation of mammalian sperm, spermatogenesis, fertil-
   ization, morpogenesis and mor-
   phogenesis, blastogenesis, establish-
   ment of body axes formation, fate map, gestation in frog and chick, genes in development in chick, homo-
   dentic, development of eye and heart, placenta in mammals.
   (b) Cell lineage, stem cell concept, Genetic and induced teratogenesis, role of sex hormone in control of mor-
   phogenesis in amphibian, paedogene-
   sis and recrudescency, cell death, aging.
   (c) Developmental genes in man, in vitro fertilization and embryo trans-
   fer, cloning.
   (d) Stem cells: Sources, types and their use in human welfare.
   (e) Biogenetic law.
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 sketch 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.

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 get or obtain nor attempt to use any unauthorized assistance or 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 enclose your booklet series (A, B, C, D... 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 anything other than the specific items of information asked for, on the answer sheet/test booklet/test 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 computational 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, students are 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 correctly and 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) (b) (c) (d)

11. Entries in Scanable Attendance List
Candidates are required to fill in the relevant particulars with black ball pen only against their columns in the Scanable 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 Series
(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 machines, 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 filled up completely. 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 01 Mathematics (A) Roll Number

You should write with black ball pen the name of the centre and subject in English or Hindi. The test Booklet Series is incised 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 encoded.

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:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Roll Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>081276</td>
</tr>
</tbody>
</table>

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 simply:

Important : Please ensure that you have carefully encoded your subject, Test Booklet series and Roll Number.

*davp 55104/14/0011/1415 EN 3/0