



# UNION PUBLIC SERVICE COMMISSION

**EXAMINATION NOTICE NO.07/2020-ISS**

**DATED : 10.06.2020**

**(LAST DATE FOR SUBMISSION OF APPLICATIONS : 30.06.2020)**

**INDIAN STATISTICAL SERVICE EXAMINATION, 2020**

**(COMMISSION'S WEBSITE : <http://www.upsc.gov.in>)**

## **IMPORTANT**

### **1. CANDIDATES TO ENSURE THEIR ELIGIBILITY FOR THE EXAMINATION :**

All candidates (male/female/transgender) are requested to carefully read the Rules of Indian Statistical Service Examination notified by the Government (Ministry of Statistics and Programme Implementation) and this Notice of Examination derived from these Rules. Candidates applying for the examination should ensure that they fulfill all eligibility conditions for admission to the Examination. Their admission at all the stages of the examination will be purely provisional subject to satisfying the prescribed eligibility conditions. Mere issue of e-Admission Certificate to the candidate will not imply that his/her candidature has been finally cleared by the Commission. Verification of eligibility conditions with reference to original documents is taken up only after the candidate has qualified for Interview/Personality Test. The Commission takes 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** only by using the website <https://www.upsconline.nic.in> Brief instructions for filling up the online Application Form have been given in Appendix-II. Detailed instructions are available on the above mentioned website.

2.1 Candidate should have details of one Photo ID Card viz. Aadhaar Card/ Voter Card/PAN Card/Passport/Driving Licence/Any other Photo ID Card issued by the State/Central Government. The details of this Photo ID Card will have to be provided by the candidate while filling up the online application form. The candidates will have to upload a scanned copy of the Photo ID whose details have been provided in the online application by him/ her. This Photo ID Card will be used for all future referencing and the candidate is advised to carry this Photo ID Card while appearing for Examination/Personality Test.

2.2 The Commission has introduced the facility of withdrawal of Application for those candidates who do not want to appear for the Examination. In this regard, Instructions are mentioned in Appendix-II(B) of this Examination Notice.

### **3. LAST DATE FOR SUBMISSION AND WITHDRAWAL OF APPLICATIONS:**

(I) The Online Applications can be filled up to **30<sup>th</sup> June, 2020 till 18.00 Hours.**

(II) The online Applications can be withdrawn from **07.07.2020 to 13.07.2020** till 6.00 PM. Detailed instructions regarding withdrawal of Applications is available at Appendix-II (B).

4. The eligible candidates shall be issued an e-Admission Certificate three weeks before the commencement of the examination. The e-Admission Certificate will be made available in the UPSC website [<https://www.upsconline.nic.in>] for downloading by candidates. No Admission Certificate will be sent by post. All the applicants are required to provide valid and active E-Mail I.D. while filling up Online Application Form as the Commission may use electronic mode for contacting them.

### **5. SPECIAL INSTRUCTIONS**

Candidates are advised to read carefully "Special Instructions to the Candidates for Conventional Type Tests" (Appendix-III) and "Special Instructions for Objective Type Tests" (Appendix-IV).

### **6. INSTRUCTIONS FOR FILLING UP OMR SHEETS:**

a) For both writing and marking answers in the OMR Sheets (Answer Sheet) candidates must use black ball point pen only. Pens with any other colours are prohibited. Do not use Pencil or Ink pen.

b) Candidates should note that any omission/mistake/discrepancy in encoding/filling in details in the OMR answer sheet; especially with regard to Roll Number and Test Booklet Series Code, will render the answer sheet liable for rejection.

### **7. PENALTY FOR WRONG ANSWERS (In Objective Type Question Paper):**

Candidates should note that there will be penalty (**Negative Marking**) for wrong answers marked by a candidate in the Objective Type Question Paper.

### **8. FACILITATION COUNTER FOR GUIDANCE OF CANDIDATES :**

In case of any guidance/information/clarification regarding their applications, candidature etc. candidates can contact UPSC's Facilitation Counter near 'C' Gate of its campus in person or over **Telephone No.011-23385271/011-23381125/011-23098543** on working days between 10.00 Hrs. and 17.00 Hrs.

### **9. Mobile Phones Banned :**

(a)The use of any mobile phone (even in switched off mode), pager or any electronic equipment or programmable device or storage media like pen drive, smart watches etc. or camera or blue tooth devices or any other equipment or related accessories either in working or switched off mode capable of being used as a communication device during the examination is strictly prohibited. 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/bluetooth or any valuable/costly items to the venue of the examination, as arrangement for safe-keeping cannot be assured. Commission will not be responsible for any loss in this regard.

**No.12/2/2019-E.I(B)** : A combined competitive examination for recruitment to Junior Time Scale of the Indian Statistical Service will be held by the Union Public Service Commission commencing from **16<sup>th</sup> October, 2020** in accordance with the Rules published by the Ministry of Statistics & Programme Implementation in the Gazette of India dated the **10<sup>th</sup> June, 2020**. The examination will be held at the following centres :-

AHMEDABAD	JAMMU
BENGALURU	KOLKATA
BHOPAL	LUCKNOW
CHANDIGARH	MUMBAI
CHENNAI	PATNA
CUTTACK	PRAYAGRAJ (ALLAHABAD)
DELHI	SHILLONG
DISPUR	SHIMLA
HYDERABAD	THIRUVANANTHAPURAM
JAIPUR	

The centres and the date of holding the examination as mentioned above are liable to be changed at the discretion of the Commission. Applicants should note that there will be a ceiling on the number of candidates allotted to each of the Centres, except Chennai, Delhi, Dispur, Kolkata and Ahmedabad. Allotment of Centres will be on the **“first-apply-first allot”** basis, and once the capacity of a particular Centre is attained, the same will be frozen. Applicants, who cannot get a Centre of their Choice due to ceiling, will be required to choose a Centre from the remaining ones. Applicants are, thus, advised that they may apply early so that they could get a Centre of their choice.

**NB : Notwithstanding the aforesaid provision, Commission reserve the right to change the Centres at their discretion if the situation demands.**

Candidates admitted to the examination will be informed of the time table and place or places of examination. **The candidates should note that no request for change of centre will be entertained. All the examination centres for the examination will cater to the examination for Persons with Benchmark Disabilities also.**

**2. The approximate number of vacancies to be filled through the Indian Statistical Service Examination is 47**

**NOTE : 01 vacancy has been kept reserved for Persons with Benchmark Disabilities in the category of Blindness or Low Vision.**

The number of vacancies mentioned above is liable to alteration.

Reservation will be made for candidates belonging to Scheduled Castes, Scheduled Tribes. Other Backward Classes, Economically Weaker Sections and persons with benchmark disability categories in respect of vacancies as may be fixed by the Government.

A candidate will be eligible to get the benefit of community reservation only in case the particular caste to which the candidates belong is included in the list of reserved communities issued by the Central Government. The candidates will be eligible to get the benefit of the Economically Weaker Section reservation only in case the candidate meets the criteria issued by the Central Government and in possession of such eligibility certification. If a candidate indicates in his/her application form for Indian Statistical Service Examination that he/she belongs to General category but subsequently writes to the Commission to change his/her category to a reserved one, such request shall not be entertained by the Commission. Further, once a candidate has chosen a reserved category, no request shall be entertained for change to other reserved category viz. SC to ST, ST to SC, OBC to SC/ST or SC/ST to OBC, SC to EWS, EWS to SC, ST to EWS, EWS to ST, OBC to EWS, EWS to OBC. No reserved category candidates other than those recommended on General Merit shall be allowed to change his/her category from Reserved to Unreserved or claim the vacancies for UR category after the declaration of final result by UPSC.

Further no Person with Benchmark Disabilities (PwBD) of any subcategory thereunder shall be allowed to change his/her sub-category of disability.

While the above principle will be followed in general, there may be a few cases where there was a gap not more than 3 months between the issuance of a Government Notification enlisting a particular community in the list of any of the reserved communities and the date of submission of the application by the candidate. In such cases the request of change of community from general to reserved may be considered by the Commission on merit. In case of a candidate unfortunately becoming person with benchmark disability during the course of the examination process, the candidate should produce valid documents showing him/her acquiring a disability to the extent of 40% or more as defined under the Rights of Persons with Disabilities Act, 2016 to enable him/her to get the benefits of reservation

earmarked for persons with benchmark disability provided he/she otherwise remains eligible for the Indian Statistical Service as per Rule 18 of the Rules of the Indian Statistical Service Examination, 2020.

Candidates seeking reservation/relaxation benefits available for SC/ST/OBC/EWSs/PwBD/Ex-servicemen must ensure that they are entitled to such reservation/relaxation as per eligibility prescribed in the Rules/Notice. They should also be in possession of all the requisite certificates in the prescribed format in support of their claim as stipulated in the Rules/Notice for such benefits, and these certificates should be dated earlier than the due date (closing date) of the application. The EWS Candidate applying for ISS Exam 2020 must produce an Income and Asset Certificate for F.Y.2018-2019.

As per the decision taken by the Government for increasing the access of unemployed to job opportunities, the Commission will publically disclose the scores of the candidates (obtained in the Written Examination and Interview/Personality Test) through the public portals. The disclosure will be made in respect of only those candidates who will appear in the Interview/Personality Test for the Indian Statistical Service Examination and are not finally recommended for appointment. The information shared through this disclosure scheme about the non-recommended candidates may be used by other public and private recruitment agencies to appoint suitable candidates from the information made available in the public portal.

Candidates will be required to give their options at the time of Interview/ Personality Test, while acknowledging the e-summon letter mailed to them for interview. A candidate may opt out of the scheme also and in that case his/her details will not be published by the Commission.

Besides sharing of the information of the non-recommended candidates for the examinations conducted by the Commission, the Commission will not assume any responsibility or liability for the method and manner in which information related to candidates who appear at the Commission's Examinations/Selections is utilized by other private or public organizations.

### **3. ELIGIBILITY CONDITIONS :**

#### **(I) Nationality**

A candidate must be either :—

- (a) a citizen of India; or
- (b) a subject of Nepal; or
- (c) a subject of Bhutan; or
- (d) a Tibetan refugee who came over to India, before the 1st January, 1962, with the intention of permanently settling in India; or
- (e) a person of Indian origin who has migrated from Pakistan, Burma, Sri Lanka, East African countries of Kenya, Uganda, the United Republic of Tanzania, Zambia, Malawi, Zaire and Ethiopia or Vietnam with the intention of permanently settling in India :

Provided that a candidate belonging to categories (b), (c), (d) & (e) above shall be person in whose favour a certificate of eligibility has been issued by the Government of India.

A candidate in whose case a certificate of eligibility is necessary may be admitted to the examination but the offer of appointment may be given only after the necessary eligibility certificate has been issued to him/her by the Government of India.

#### **(II) Age Limits :**

(a) A candidate must have attained the age of 21 years and must not have attained the age of 30 years on 1st August, 2020 i.e he/she must have been born not earlier than 2nd August, 1990 and not later than 1st August, 1999.

(b) The upper age-limit prescribed above will be relaxable as follows :—

- (i) up to a maximum of five years if a candidate belong to a Scheduled Caste or a Scheduled Tribe;
- (ii) up to a maximum of three years in the case of candidate belonging to Other Backward Classes who are eligible to avail of reservation applicable to such candidates;
- (iii) up to a maximum of three years in the case of Defence Services Personnel disabled in operations during hostilities with any foreign country or in a disturbed area, and released as a consequence thereof ;
- (iv) up to a maximum of five years in the case of ex-servicemen including Commissioned Officers and ECOs/SSCOs who have rendered at least five years Military Service as on 1st August, 2020 and have been released : (i) on

completion of assignment (including those whose assignment is due to be completed within one year from 1st August, 2020 otherwise than by way of dismissal or discharge on account or misconduct or inefficiency; or (ii) on account of Physical disability attributable to Military Service; or (iii) on invalidment;

- (v) up to a maximum of five years in the case of ECOs/SSCOs who have completed an initial period of assignment of five years of Military Service as on 1st August, 2020 and whose assignment has been extended beyond five years and in whose case the Ministry of Defence issues a certificate that they can apply for Civil employment and that they will be released on three months' notice on selection from the date of receipt of offer of appointment;
- (vi) up to a maximum of 10 years in the case of Persons with Benchmark Disabilities viz; (a) blindness and low vision; (b) deaf and hard of hearing; (c) locomotor disability including cerebral palsy, leprosy cured, dwarfism, acid attack victims and muscular dystrophy; (d) autism, intellectual disability, specific learning disability and mental illness; (e) multiple disabilities from amongst person under clauses (a) to (d) including deaf blindness.

**NOTE I:** Candidates belonging to the Scheduled Castes and the Scheduled Tribes and the Other Backward Classes who are also covered under any other clauses of para 3(II)(b) above, viz. those coming under the category of Ex-servicemen and Persons with Benchmark Disabilities viz. (a) blindness and low vision; (b) deaf and hard of hearing; (c) locomotor disability including cerebral palsy, leprosy cured, dwarfism, acid attack victims and muscular dystrophy; (d) autism, intellectual disability, specific learning disability and mental illness; (e) multiple disabilities from amongst person under clauses (a) to (d) including deaf blindness. will be eligible for grant of cumulative age-relaxation under both the categories.

**NOTE II:** The term ex-servicemen will apply to the persons who are defined as Ex-servicemen in the Ex-servicemen (Re-employment in Civil Services and Posts) Rules, 1979, as amended from time to time.

**NOTE III:** The age concession under Para 3(II)(b)(iv) and (v) will be admissible to Ex-servicemen i.e. a person who has served in any rank whether as combatant or non-combatant in the Regular Army, Navy and Air Force of the Indian Union and who either has been retired or relieved or discharged from such service whether at his own request or being relieved by the employer after earning his or her pension.

**NOTE IV:** Notwithstanding the provisions of age relaxation under para 3(II)(b)(vi) above, a person with Benchmark Disabilities will be considered to be eligible for appointment only if he/she (after such physical examination as the Government or appointing authority as the case may be, may prescribed) if found to satisfy the requirement of physical and medical standard for the concerned Services/Posts to be allocated to the persons with Benchmark Disabilities by the Government.

**NOTE V :** The details of Functional Classification (FC) and Physical Requirements (PR) of each service is indicated in this Notice which are identified and prescribed by the concerned Cadre Controlling Authority (CCA) as per the provisions of Section 33 and 34 of the Rights of Persons with Disabilities Act, 2016. Only those category (ies) of disability (ies) mentioned in the Notice shall apply for the examination under Persons with Benchmark Disability (PwBD) categories. Therefore, the candidates belonging to the Persons with Benchmark Disability categories are advised to read it carefully before applying for the examination.

**SAVE AS PROVIDED ABOVE THE AGE LIMITS PRESCRIBED CAN IN NO CASE BE RELAXED**

The date of birth, accepted by the Commission is that entered in the Matriculation or Secondary School Leaving Certificate or in a certificate recognised by an Indian University as equivalent to Matriculation or in an extract from a Register of Matriculates maintained by a University, which extract must be certified by the proper authority of the University or in the Higher Secondary or an equivalent examination certificate.

These certificates are required to be submitted only after the declaration of the result of the written part of the examination.

No other document relating to age like horoscopes, affidavits, birth extracts from Municipal Corporation, Service Records and the like will be accepted.

The expression Matriculation/Higher Secondary Examination Certificate in this part of the instruction includes the alternative certificates mentioned above.

NOTE-1: Candidate should note that only the Date of Birth as recorded in the Matriculation/Higher Secondary Examination Certificate or an equivalent certificate as on the date of submission of applications will be accepted by the Commission, and no subsequent request for its change will be considered or granted.

NOTE 2: Candidates should also note that once Date of Birth has been **claimed submitted by them in the application form** and entered in records of the Commission for the purpose of admission to an Examination, no change will be allowed subsequently (or at any other Examination of the Commission) on any grounds whatsoever.

NOTE 3: The candidate should exercise due care while entering their date of birth in respective column of the Online Application Form for the Examination. If on verification at any subsequent stage, any variation is found in their date of birth from the one entered in their matriculation or equivalent Examination certificate, disciplinary action will be taken against them by the Commission under the Rules.

### **(III) Minimum Educational Qualifications :**

A candidate for the Indian Statistical Service must have obtained a Bachelor's Degree with Statistics/Mathematical Statistics/Applied Statistics as one of the subject or a Master's degree in Statistics/Mathematical Statistics/Applied Statistics from a University incorporated by an Act of the Central or State Legislature in India or other Educational Institutes established by an Act of Parliament or declared to be deemed as University under Section 3 of the University Grants Commission Act, 1956 or a Foreign University approved by the Central Government from time to time.

**NOTE 1:** A candidate who has appeared at an examination the passing of which would render them eligible to appear at this examination, but has not been informed of the result, may apply for admission to the examination. A candidate who intends to appear at such a qualifying examination may also apply. Such a candidate will be admitted to the examination, if otherwise eligible, but his/her admission would be deemed to be provisional and subject to cancellation, if his/her does not produce the proof of having passed the requisite qualifying examination along with the Detailed Application Form which will be required to be submitted by the candidate who qualify on the results of the written part of the examination. Such proof of passing the requisite examination should be dated earlier than the due date (closing date) of Detailed Application Form of the Indian Statistical Service Examination, 2020.

**NOTE 2:** In exceptional cases, the Union Public Service Commission may treat a candidate, who has none of the foregoing qualification, as a qualified candidate provided that he/she has passed examinations conducted by other institutions the standard of which in the opinion of the Commission, justifies his/her admission to the examination.

**NOTE 3:** A candidate who is otherwise qualified but who has taken a degree from a Foreign University may also apply to the Commission and may be admitted to the examination at the discretion of the Commission.

### **(IV) Physical Standards :**

Candidates must be physically fit according to **physical** standard for admission to Indian Statistical Service Examination, 2020 as per Regulations given in Appendix III of the rules for the Indian Statistical Service Examination, 2020 published in Gazette of India dated **10<sup>th</sup> June, 2020**.

#### **4. FEE :**

Candidates (excepting Female/SC/ST/Persons with Benchmark Disability Candidates who are exempted from payment of fee) are required to pay fee of Rs. 200/- (Rupees Two Hundred only) either by remitting the money in any Branch of State Bank of India or by using Visa/Master/RuPay Credit/Debit Card or by using Internet Banking of SBI. Applicants who opt for "Pay by Cash" mode should print the system generated Pay-in-slip during part II registration and deposit the fee at the counter of SBI Branch on the next working day only. "Pay by Cash" mode will be deactivated at 23.59 hours of **29.06.2020** i.e. one day before the closing date; however applicants who have generated their Pay-in- Slip before it is deactivated may pay at the counter of SBI Branch during banking hours on the closing date. Such applicants who are unable to pay by cash on the closing date i.e during banking hours at SBI Branch, for reasons whatsoever, even if holding valid pay-in-slip will

have no other offline option but to opt for available online Debit/Credit Card or Internet Banking payment mode on the closing date i.e. till 18:00 Hours of **30.06.2020**.

**Note-1** : Candidates should note that payment of examination fee can be made only through the modes prescribed above. Payment of fee through any other mode is neither valid nor acceptable. Applications submitted without the prescribed fee/mode (unless remission of fee is claimed) shall be summarily rejected.

**Note-2** : Fee once paid shall not be refunded under any circumstances nor can the fee be held in reserve for any other examination or selection.

**Note-3** : For the applicants in whose case payments detailed have not been received from the bank, they will be treated as fictitious payment cases and their applications will be rejected in the first instance. A list of all such applicants shall be made available on the Commission's Website within two weeks after the last day of submission of online application. The applicants shall be required to submit the proof of their fee payment within 10 days from the date of such communication either by hand or by Speed Post to the Commission. On receipt of documentary proof, genuine fee payment cases will be considered and their applications will be revived, if they are otherwise eligible.

**ALL FEMALE CANDIDATES AND CANDIDATES BELONGING TO SCHEDULED CASES/ SCHEDULED TRIBES AND PERSONS WITH BENCHMARK DISABILITY ARE NOT REQUIRED TO PAY ANY FEE. NO FEE EXEMPTION IS, HOWEVER, AVAILABLE TO OBC/EWSs CANDIDATES AND THEY ARE REQUIRED TO PAY THE FULL PRESCRIBED FEE.**

Persons with Benchmark Disabilities are exempted from the payment of fee provided they are otherwise eligible for appointment to the Services to be filled on the results of this examination on the basis of the standards of medical fitness for these Services (including any concessions specifically extended to the Persons with Benchmark Disability). A person with Benchmark Disability claiming age relaxation/fee concession will be required by the Commission to submit along with their Detailed Application Form, a certified copy of the certificate from a Government Hospital/Medical Board in support of his/her claim for being person with Benchmark Disability.

**NOTE** : Notwithstanding the aforesaid provision for age relaxation/fee exemption, a person with Benchmark Disabilities will be considered to be eligible for appointment for appointment only if he/she (after such physical examination as the Government or the appointing authority, as the case may be, may prescribe) is found to satisfy the requirements of physical and medical standards for the concerned Services to be allocated to persons with Benchmark Disabilities by the Government.

**Note-I** : Applications without prescribed Fee (Unless remission of Fee is claimed shall be summarily rejected.

**Note-II** : Fee once paid shall not be refunded under any circumstances not can the fee be held in reserve for any other examination or selection.

**Note-III** : If any candidate who took the Indian Statistical Service Examination held in 2019 wishes to apply for admission to this examination, he/she must apply online by the prescribed date without waiting for the results or any offer of appointment.

## **5. HOW TO APPLY :**

(a) Candidates are required to apply Online using the <https://www.upsconline.nic.in> Detailed instructions for filling up Online Applications are available on the above-mentioned website.

(b) The applicants are advised to submit only single application. However, if due to any unavoidable situation, he/she submits another/multiple applications, then he/she must ensure that application with the higher RID is complete in all respects like applicants details, examination centre, photograph, signature, fee etc. The applicants who are submitting multiple applications should note that only the applications with higher RID (Registration ID) shall be entertained by the Commission and fee paid against one RID shall not be adjusted against any other RID.

(c) All candidates, whether already in Government Service, or in Government owned industrial undertakings or other similar organizations or in private employment should submit their applications direct to the Commission. Persons already in Government service, whether in a permanent or temporary capacity or as work charged employees other than casual or daily rated employees or those serving under Public Enterprises are however, required to inform in writing their Head of Office/ Department that they have applied for the Examination.

Candidates should note that in case a communication is received from their employer by the Commission withholding permission to the candidates applying for/appearing at the

examination, their applications will be liable to be rejected/candidature will be liable to be cancelled.

**NOTE-1 :** While filling in his/her application form, the candidate should carefully decide about his/her choice for the centre for the Examination.

**If any candidate appears at a centre other than the one indicated by the Commission in his/her e-Admission Certificate, the papers of such a candidate will not be evaluated and his/her candidature will be liable to cancellation.**

**NOTE-2:** Incomplete or defective applications shall be summarily rejected. No representation or correspondence regarding such rejection shall be entertained under any circumstances.

(d) Candidates are not required to submit hard copy of their application to the Commission at this stage.

**The candidates applying for the examination should ensure that they fulfill all the eligibility conditions for admission to the Examination. Their admission at all the stages of examination for which they are admitted by the Commission, viz. Written Examination and Interview Test will be purely provisional, subject to their satisfying the prescribed eligibility conditions. If on verification, at any time, before or after the written examination or Interview Test, it is found that they do not fulfill any of the eligibility conditions; their candidature for the examination will be cancelled by the Commission.**

Candidates are requested to keep ready the attested copies of the following documents for submission to the Commission soon after the declaration of the result of the written part of the part of the examination which is likely to be declared in the month of **December, 2020**.

1. Certificate of Age.
  2. Certificate of Educational Qualification indicating the Subjects.
  3. Certificate in support of claim to belong to Schedule Caste, Scheduled Tribe and Other Backward Classes, Economically Weaker Sections where applicable.
  4. Certificate in support of claim for age/fee concession, where applicable.
  5. Certificate in support of being persons with Benchmark Disability (where applicable).
- Immediately after declaration of result of the written part of the examination, successful candidates may be intimated by the Commission electronically and they shall be asked to submit Detailed Application Form (DAF) online. The successful candidates have to send the printout of this DAF with each page duly signed along with the attested copies of the above mentioned certificates of the above mentioned certificates to the Commission at that time. Originals will have to be produced at the time of interview. The interview letter to the candidates may also be issued electronically. If any of their claims is found to be incorrect, they may render themselves liable to disciplinary action by the Commission in terms of Rule 11 of the Rules for the Indian Statistical Service Examination, 2020 notified in the Gazette of India dated **10<sup>th</sup> June, 2020** and also reproduced below :

A candidate who is or has been declared by Commission to be guilty of :

- i) obtaining support for his/her candidature by any following means namely:-
  - (a) offering illegal gratification; or
  - (b) applying pressure on ; or
  - (c) blackmailing or threatening to blackmail any person connected with the conduct of the examination; or
- (ii) impersonation, or
- (iii) procuring impersonation by any person, or
- (iv) submitting fabricated documents or documents which have been tampered with, or
- (v) uploading irrelevant photos in the application form in place of actual photo/signature.
- (vi) making statements which are incorrect or false, or suppressing material information, or
- (vii) resorting to any other irregular or improper means in connection with his/her candidature for the Examination, or
- (viii) being in possession of or using unfair means during the examination, or
- (ix) writing irrelevant matter including, obscene language or irrelevant matter pornographic matter, in the script(s), or
- (x) misbehaving in any other manner in the examination hall, or
- (xi) harassing or doing bodily harm to the staff employed by the Commission for the conduct of their examination, or
- (xii) being in possession of or using any mobile phone (even in switched off mode), pager or any electronic equipment or programmable device or storage media

like pen drive, smart watches etc. or camera or blue tooth devices or any other equipment or related accessories either in working or switched off mode capable of being used as a communication device during the examination; or

- (xiii) violating any of the instructions issued to candidates along with their e-Admission Certificates permitting them to take the examination, or
- (xiv) attempting to commit, or as the case may be abetting the commission of all or any of the acts specified in the foregoing clauses; may in addition to rendering himself/herself liable to criminal prosecution, be liable
  - (a) to and shall be disqualified by the Commission from the examination for which he/she is a candidate; and/or
  - (b) shall be liable to be debarred either permanently or for a specified period:-
    - (i) by the Commission from any examination or selection held by them;
    - (ii) by the Central Government from any employment under them;and
  - (c) if he/she is already in service under Government to disciplinary action under the appropriate rules :

Provided that no penalty under this rule shall be imposed except after :

- (i) giving the candidate an opportunity of making such representation in writing as he/she may wish to make in that behalf; and
- (ii) taking the representation, if any, submitted by the candidate, within the period allowed to him/ her into consideration.

Any person who is found by the Commission to be guilty of colluding with a candidate (s) in committing or abetting the Commission of any of the misdeeds listed at Clauses (i) to (xiii) above render himself liable to action in terms of the Clause (xiv).

#### **6. LAST DATE FOR SUBMISSION OF APPLICATION :**

The Online Applications can be filled upto **30<sup>th</sup> June, 2020** till 18.00 Hours, after which the link will be disabled. Detailed instructions regarding filling of online application is available at Appendix-II(A).

(ii) The online Applications can be withdrawn from **07.07.2020 to 13.07.2020** till 6.00 PM after which the link will be disabled. Detailed instructions regarding withdrawal of Applications is available at Appendix-II(B).

#### **7. CORRESPONDENCE WITH THE COMMISSION :**

The Commission will not enter into any correspondence with the candidates about their candidature except in the following cases :

(i) The eligible candidates shall be issued an e-Admission Certificate three weeks before the commencement of the examination. The e-Admission Certificate will be made available on the UPSC Web-site [<https://www.upsc.gov.in>] for downloading by candidates. No Admission Certificate will be sent by post. For downloading the e-Admission Certificate/e-Admit Card the candidate must have his/her vital parameters like RID and Date of Birth or Roll No. (if received) & date of birth or name, father's name & Date of Birth available with him/her. **If a candidate does not receive his/her admission certificate or any other communication regarding his/her candidature for the examination three weeks before the commencement of the examination, he/she should at once contact the Commission.** Information in this regard can also be obtained from the Facilitation Counter located in the Commission's Office either in person or over phone Nos.011-23381125/011-23385271/011-23098543. **In case no communication is received in the Commission's office from the candidate regarding non-receipt of his/her e-Admission Certificate at least three weeks before the examination, he/she himself/herself will be solely responsible for non-receipt of his/her e-Admission Certificate.**

**No candidate will ordinarily be allowed to take the examination unless he/she holds an e-admission certificate for the examination. On receipt of e-Admission Certificate, check it carefully and bring discrepancies/errors, if any, to the notice of UPSC immediately.**

The candidates should note that their admission to the examination will be purely provisional based on the information given by them in the Application Form. This will be subject to verification of all the eligibility conditions by the UPSC.

**The mere fact that an e-admission certificate to the Examination has been issued to a candidate will not imply that the Commission has finally cleared his/her candidature or that the Commission has accepted entries made by the candidate in his/her application for the Examination as true and correct. Candidates may note that the**

**Commission will take up the verification of eligibility conditions of a candidate, with reference to original documents, only after the candidate has qualified the Indian Statistical Service (Written) Examination. Unless the Commission formally confirms candidature, it continues to be provisional.**

The decision of the Commission as to the eligibility or otherwise of a candidate for admission to the Examination shall be final.

Candidates should note that the name in the e-Admission Certificate in some cases may be abbreviated due to technical reasons.

(ii) The candidates must ensure that their E-Mail IDs given in their Online Applications are valid and active as the Commission may use electronic mode of communication while contacting them at different stages of examination processes.

(iii) A candidate must see that communications sent to him/her at the address stated in his/her application are redirected, if necessary. Change in address should be communicated to the Commission at the earliest opportunity. Although the Commission make every effort to take account of such changes, they cannot accept any responsibility in the matter.

(iv) Candidates may note that they will not be allowed to take the examination on the strength of an e-Admission Certificate issued in respect of another candidate.

**IMPORTANT : ALL COMMUNICATIONS TO THE COMMISSION SHOULD INVARIABLY CONTAIN THE FOLLOWING PARTICULARS :**

1. NAME AND YEAR OF THE EXAMINATION
2. REGISTRATION I.D. (RID)
3. ROLL NUMBER (IF RECEIVED)
4. NAME OF CANDIDATE (IN FULL AND IN BLOCK LETTERS)
5. COMPLETE POSTAL ADDRESS AS GIVEN IN THE APPLICATION.
6. VALID AND ACTIVE E-MAIL ID.

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

N.B.II : If a letter/communication is received from a candidate after an examination has been held and it does not give his/her full name and Roll number, it will be ignored and no action will be taken thereon.

Candidates are strongly advised to keep a printout or soft copy of their online application for future references.

8. The eligibility for availing reservation against the vacancies reserved for the Persons with Benchmark Disabilities shall be the same as prescribed in "The Rights of Persons with Disabilities Act, 2016 (RPwD Act, 2016)". The candidates of Multiple Disabilities will be eligible for reservation under category (e) - Multiple Disabilities only of Section 34(1) of RPwD Act, 2016 and shall not be eligible for reservation under any other categories of disabilities i.e. (a) to (d) of Section 34(1) of RPwD Act, 2016 on account of having 40% and above impairment in any of these categories of PwBD.

Provided further that the persons with Benchmark Disabilities shall also be required to meet special eligibility criteria in terms of physical requirements/functional classification (abilities/ disabilities) consistent with requirements of the identified Service/Post as under:-  
Indian Statistical Service

Sl.	Functional Classification	Physical Requirements
a	Blindness (B)	H, SP, S, ST, W, MF, RW (in Braille/ software)
	Low Vision (LV)	H, SP, S, ST, W, MF, RW, SE (with appropriate aids)
b	Deaf (D)	SP, S, ST, W, MF, RW, SE
	Hard of Hearing (HH)	H (with appropriate aids), SP, S, ST, W, MF, RW, SE
c	OA (One Arm affected ), OL (One leg affected), OLA (One arm and one leg affected), BL (Both leg affected) , DW (Dwarfism), LC (Leprosy Cured), AAV (Acid Attack Victims) and CP (Cerebral Palsy)	H, SP, S, ST, W, MF, RW, SE [Mobility should not be affected. Persons should be assessed with appropriate aids and appliances].
d	SLD (except dyscalculia)	H, SP, S, ST, W, MF, RW, SE, N
e	Multiple Disability (MD) involve the following:-	

Sl.	Functional Classification	Physical Requirements
	• Locomotor Disability (excluding muscular dystrophy) with low vision or blindness i.e. OA with LV/B, OL with LV/B, OLA with LV/B, BL with LV/B, DW with LV/B, AAV with LV/B, LC with LV/B.	H, SP, S, ST, W, MF, RW (for Blindness in Braille/software), SE (for LV only)
	• Locomotor Disability (excluding muscular dystrophy) with Deaf (D) or Hard of Hearing (HH) i.e. OA with D/HH, OL with D/HH, OLA with D/HH, BL with D/HH, DW with D/HH, AAV with D/HH, LC with D/HH.	SP, S, ST, W, MF, RW, SE, H (for HH only)
	• LV with HH	H (with appropriate aids), SP, S, ST, W, MF, RW, SE (with appropriate aids)
	• Locomotor disability (excluding muscular dystrophy) with SLD i.e. OA with SLD, OL with SLD, OAL with SLD, BL with SLD, AAV with SLD, DW with SLD	H, SP, S, ST, W, MF, RW, SE, N [Mobility should not be affected. Persons should be assessed with appropriate aids and appliances].
	• SLD with LV	H, SP, S, ST, W, MF, RW, SE (with appropriate aids), N
	• SLD with HH	H (with appropriate aids), SP, S, ST, W, MF, RW, SE, N
	• Locomotor Disability (excluding muscular dystrophy) with HH	H, SP, S, ST, W, MF, RW (for Blindness in Braille/software), SE (for LV only)

Note: H- Hearing, SP- Speaking, S – Sitting, ST – Standing, W – Walking, MF – Manipulation by fingers, RW – Reading & Writing, SE – Seeing, OA - One Arm affected, OL - One Leg affected, OLA - One Leg One Arm affected, N- Numerical calculation ability, C - Communication and BL - Both legs affected.

9. Details about the scheme of examination, standard and syllabi of the subjects etc. may be seen in Appendix-I of this Notice.

( OM PRAKASH)

Under Secretary

Union Public Service Commission

**APPENDIX-I  
SCHEME OF EXAMINATION  
SECTION-I**

The examination shall be conducted according to the following plan—

Part I-Written examination carrying a maximum of 1000 marks in the subjects as shown below.

Part II-*Viva voce* of such candidates as may be called by the Commission carrying a maximum of 200 marks.

**PART-I**

The subjects of the written examination under Part-I, the maximum marks allotted to each subject/paper and the time allowed shall be as follows :

Indian Statistical Service

Sl. No.	Subject	Maximum Marks	Time Allowed
1.	General English	100	3 hrs.
2.	General Studies	100	3 hrs.
3.	Statistics-I (Objective)	200	2 hrs.
4.	Statistics-II (Objective)	200	2 hrs.
5.	Statistics-III (Descriptive)	200	3 hrs.
6.	Statistics-IV (Descriptive)	200	3 hrs.

**Note-1: Statistics I & II will be of Objective Type Questions (80 questions with maximum marks of 200 in each paper) to be attempted in 120 minutes.**

**Note-2: Statistics III and IV will be of Descriptive Type having Short Answer/ Small Problems Questions (50%) and Long Answer and Comprehension problem questions (50%). At least one Short Answer and One Long Answer Question from each section is compulsory. In Statistics-IV, equal number of questions i.e. 50% weightage from all the sub-sections below and candidates have to choose any two sub-sections and answer.**

**Note-3: The papers on General English and General Studies will be of subjective type.**

**Note-4: The details of standard and syllabi for the examination are given in Section-II below.**

2. The question papers in all subjects will be of Conventional (essay) type except in Statistics Paper I and Statistics Paper II which are Objective Type Papers.

3. ALL QUESTION PAPERS MUST BE ANSWERED IN ENGLISH; QUESTION PAPERS WILL BE SET IN ENGLISH ONLY.

4. (i) Candidates must write the papers in their own hand. In no circumstances will they be allowed the help of a scribe to write the answers for them. The Persons with Benchmark Disabilities in the categories of blindness, locomotor disability (both arm affected – BA) and cerebral palsy will be provided the facility of scribe, if desired by the person. In case of other category of Persons with Benchmark Disabilities as defined under section 2(r) of the RPWD Act, 2016, the facility of scribe will be allowed to such candidates on production of a certificate to the effect that the person concerned has physical limitation to write, and scribe is essential to write examination on behalf, from the Chief Medical Officer/ Civil Surgeon/ Medical Superintendent of a Government Health Care institution as per proforma at Appendix – V.

(ii) The candidates have discretion of opting for his/her own scribe or request the Commission for the same. The details of scribe i.e. whether own or the Commission's and the details of scribe in case candidates are bringing their own scribe, will be sought at the time of filling up the application form online as per proforma at Appendix - VI.

(iii) The qualification of the Commission's scribe as well as own scribe will not be more than the minimum qualification criteria of the examination. However, the qualification of the scribe should always be matriculate or above.

(iv) The Persons with Benchmark Disabilities in the category of blindness, locomotor disability (both arm affected – BA) and cerebral palsy will be allowed Compensatory Time of twenty minutes per hour of the examination. In case of other categories of Persons with Benchmark Disabilities, this facility will be provided on production of a certificate to the effect that the person concerned has physical limitation to write from the Chief Medical Officer/ Civil Surgeon/ Medical Superintendent of a Government Health Care institution as per proforma at Appendix – V.

**Note (1) :** The eligibility conditions of a scribe, his/her conduct inside the examination hall and the manner in which and extent to which he/she can help the PwBD candidate in writing the Indian Statistical Service Examination shall be governed by the instructions issued by the UPSC in this regard. Violation of all or any of the said instructions shall entail the cancellation of the candidature of the PwBD candidate in addition to any other action that the UPSC may take against the scribe.

**Note (2) :** The criteria for determining the percentage of visual impairment shall be as follows :—

Better eye Best Corrected	Worse eye Best Corrected	Per Cent Impairment	Disability category
6/6 to 6/18	6/6 to 6/18	0%	0
	6/24 to 6/60	10%	0
	Less than 6/60 to 3/60	20%	I
	Less than 3/60 to No Light Perception	30%	II (One eyed person)
6/24 to 6/60 Or Visual field less than 40 up to 20 degree around centre of fixation or heminaopia involving macula	6/24 to 6/60	40%	III a (low vision)
	Less than 6/60 to 3/60	50%	III b (low vision)
	Less than 3/60 to No Light Perception	60%	III c (low vision)

Less than 6/60 to 3/60 Or Visual field less than 20 up to 10 degree around centre of fixation	Less than 6/60 to 3/60	70%	III d (low vision)
	Less than 3/60 to No Light Perception	80%	III e (low vision)
Less than 3/60 to 1/60 Or Visual field less than 10 degree around centre of fixation	Less than 3/60 to No Light Perception	90%	IV a (Blindness)
Only HMCF Only Light Perception No Light Perception	Only HMCF Only Light Perception No Light Perception	100%	IV b (Blindness)

**Note (3):** The concession admissible to blind/low vision candidates shall not be admissible to those suffering from Myopia.

5. The Commission have the discretion to fix qualifying marks in any or all the subjects of the examination.

6. If a candidate's handwriting is not easily legible, a deduction will be made on this account, from the total marks otherwise accruing to him/her.

7. Marks will not be allotted for mere superficial knowledge.

8. Credit will be given for orderly effective and exact expression combined with due economy of words.

9. In the question papers, wherever required, SI Units will be used.

10. Candidates will be allowed the use of Scientific (Non-Programmable type) Calculators in Descriptive Type Papers at the examination. Programmable type calculators will, however, not be allowed and the use of such calculators shall tantamount to resorting to unfair means by the candidates. Loaning or interchanging of calculators in the Examination Hall is not permitted. However, no calculator will be allowed in the Objective Type Papers at the examination.

11. Candidates should use only International Form of Indian numerals (e.g., 1, 2, 3, 4, 5, 6 etc.) while answering question papers.

#### **PART - II**

*Viva voce*—The candidate will be interviewed by a Board of competent and unbiased observers who will have before them a record of his/her career. The object of the interview is to assess his/her suitability for the service for which he/she has competed. The interview is intended to supplement the written examination for testing the general and specialised knowledge and abilities for the candidate. The candidate will be expected to have taken an intelligent interest not only in his/her subjects of academic study but also in events which are happening around him/her both within and outside his/her own State or Country as well as in modern currents of thought and in new discoveries which should rouse the curiosity of well educated youth.

The technique of the interview is not that of a strict cross-examination, but of a natural, through directed and purposive conversation intended to reveal the candidate's mental qualities and his/her grasp of problems. The Board will pay special attention to assess the intellectual curiosity, critical powers of assimilation, balance of judgment and alertness of mind, the ability for social cohesion, integrity of character initiative and capacity for leadership.

#### **SECTION-II STANDARD AND SYLLABI**

The standard of papers in General English and General Studies will be such as may be expected of a graduate of an Indian University.

The standard of papers in the other subjects will be that of the Master's degree examination of an Indian University in the relevant disciplines. The candidates will be expected to illustrate theory by facts, and to analyse problems with the help of theory. They will be expected to be particularly conversant with Indian problems in the field(s) of Statistics.

#### **GENERAL ENGLISH**

Candidates will be required to write an essay in English. Other questions will be designed to test their understanding of English and workman like use of words. Passages will usually be set for summary or precis.

#### **GENERAL STUDIES**

General knowledge including knowledge of current events and of such matters of everyday observation and experience in their scientific aspects as may be expected of an educated person who has not made a special study of any scientific subject. The paper will also include questions on Indian Polity including the political system and the Constitution of India, History of India and Geography of a nature which a candidate should be able to answer without special study.

### **STATISTICS-I (OBJECTIVE TYPE)**

#### **(i) Probability:**

Classical and axiomatic definitions of Probability and consequences. Law of total probability, Conditional probability, Bayes' theorem and applications. Discrete and continuous random variables. Distribution functions and their properties.

Standard discrete and continuous probability distributions - Bernoulli, Uniform, Binomial, Poisson, Geometric, Rectangular, Exponential, Normal, Cauchy, Hyper geometric, Multinomial, Laplace, Negative binomial, Beta, Gamma, Lognormal. Random vectors, Joint and marginal distributions, conditional distributions, Distributions of functions of random variables. Modes of convergences of sequences of random variables - in distribution, in probability, with probability one and in mean square. Mathematical expectation and conditional expectation. Characteristic function, moment and probability generating functions, Inversion, uniqueness and continuity theorems. Borel 0-1 law, Kolmogorov's 0-1 law. Tchebycheff's and Kolmogorov's inequalities. Laws of large numbers and central limit theorems for independent variables.

#### **(ii) Statistical Methods:**

Collection, compilation and presentation of data, charts, diagrams and histogram. Frequency distribution. Measures of location, dispersion, skewness and kurtosis. Bivariate and multivariate data. Association and contingency. Curve fitting and orthogonal polynomials. Bivariate normal distribution. Regression-linear, polynomial. Distribution of the correlation coefficient, Partial and multiple correlation, Intraclass correlation, Correlation ratio.

Standard errors and large sample test. Sampling distributions of sample mean, sample variance, t, chi-square and F; tests of significance based on them, Small sample tests.

Non-parametric tests-Goodness of fit, sign, median, run, Wilcoxon, Mann-Whitney, Wald-Wolfowitz and Kolmogorov-Smirnov. Order statistics-minimum, maximum, range and median. Concept of Asymptotic relative efficiency.

#### **(iii) Numerical Analysis:**

**Finite differences of different orders:**  $\Delta$ ,  $E$  and  $D$  operators, factorial representation of a polynomial, separation of symbols, sub-division of intervals, differences of zero.

**Concept of interpolation and extrapolation:** Newton Gregory's forward and backward interpolation formulae for equal intervals, divided differences and their properties, Newton's formula for divided difference, Lagrange's formula for unequal intervals, central difference formula due to Gauss, Sterling and Bessel, concept of error terms in interpolation formula.

**Inverse interpolation:** Different methods of inverse interpolation.

**Numerical differentiation:** Trapezoidal, Simpson's one-third and three-eighth rule and Waddles rule.

**Summation of Series:** Whose general term (i) is the first difference of a function (ii) is in geometric progression.

**Numerical solutions of differential equations:** Euler's Method, Milne's Method, Picard's Method and Runge-Kutta Method.

#### **(iv) Computer application and Data Processing:**

**Basics of Computer:** Operations of a computer, Different units of a computer system like central processing unit, memory unit, arithmetic and logical unit, input unit, output unit etc., Hardware including different types of input, output and peripheral devices, Software, system and application software, number systems, Operating systems, packages and utilities, Low and High level languages, Compiler, Assembler, Memory – RAM, ROM, unit of computer memory (bits, bytes etc.), Network – LAN, WAN, internet, intranet, basics of computer security, virus, antivirus, firewall, spyware, malware etc.

**Basics of Programming:** Algorithm, Flowchart, Data, Information, Database, overview of different programming languages, frontend and backend of a project, variables, control structures, arrays and their usages, functions, modules, loops, conditional statements, exceptions, debugging and related concepts.

### **STATISTICS- II (OBJECTIVE TYPE)**

#### **(i) Linear Models:**

**Theory of linear estimation, Gauss-Markov** linear models, estimable functions, error and estimation space, normal equations and least square estimators, estimation of error

variance, estimation with correlated observations, properties of least square estimators, generalized inverse of a matrix and solution of normal equations, variances and covariances of least square estimators.

One way and two-way classifications, fixed, random and mixed effects models. Analysis of variance (two-way classification only), multiple comparison tests due to Tukey, Scheffe and Student-Newmann-Keul-Duncan.

**(ii) Statistical Inference and Hypothesis Testing:**

**Characteristics of good estimator.** Estimation methods of maximum likelihood, minimum chi-square, moments and least squares. Optimal properties of maximum likelihood estimators. Minimum variance unbiased estimators. Minimum variance bound estimators. Cramer-Rao inequality. Bhattacharya bounds. Sufficient estimator. factorization theorem. Complete statistics. Rao-Blackwell theorem. Confidence interval estimation. Optimum confidence bounds. Resampling, Bootstrap and Jackknife.

**Hypothesis testing:** Simple and composite hypotheses. Two kinds of error. Critical region. Different types of critical regions and similar regions. Power function. Most powerful and uniformly most powerful tests. Neyman-Pearson fundamental lemma. Unbiased test. Randomized test. Likelihood ratio test. Wald's SPRT, OC and ASN functions. Elements of decision theory.

**(iii) Official Statistics:**

**National and International official statistical system**

Official Statistics: (a) Need, Uses, Users, Reliability, Relevance, Limitations, Transparency, its visibility (b) Compilation, Collection, Processing, Analysis and Dissemination, Agencies Involved, Methods

**National Statistical Organization:** Vision and Mission, NSSO and CSO; roles and responsibilities; Important activities, Publications etc.

**National Statistical Commission:** Need, Constitution, its role, functions etc; Legal Acts/ Provisions/ Support for Official Statistics; Important Acts

**Index Numbers:** Different Types, Need, Data Collection Mechanism, Periodicity, Agencies Involved, Uses

**Sector Wise Statistics:** Agriculture, Health, Education, Women and Child etc. Important Surveys & Census, Indicators, Agencies and Usages etc.

**National Accounts:** Definition, Basic Concepts; issues; the Strategy, Collection of Data and Release.

**Population Census:** Need, Data Collected, Periodicity, Methods of data collection, dissemination, Agencies involved.

**Misc:** Socio Economic Indicators, Gender Awareness/Statistics, Important Surveys and Censuses.

**STATISTICS- III (DESCRIPTIVE TYPE)**

**(i) Sampling Techniques:**

Concept of population and sample, need for sampling, complete enumeration versus sampling, basic concepts in sampling, sampling and Non-sampling error, Methodologies in sample surveys (questionnaires, sampling design and methods followed in field investigation) by NSSO.

Subjective or purposive sampling, probability sampling or random sampling, simple random sampling with and without replacement, estimation of population mean, population proportions and their standard errors. Stratified random sampling, proportional and optimum allocation, comparison with simple random sampling for fixed sample size. Covariance and Variance Function.

Ratio, product and regression methods of estimation, estimation of population mean, evaluation of Bias and Variance to the first order of approximation, comparison with simple random sampling.

Systematic sampling (when population size (N) is an integer multiple of sampling size (n)). Estimation of population mean and standard error of this estimate, comparison with simple random sampling.

Sampling with probability proportional to size (with and without replacement method), Des Raj and Das estimators for  $n=2$ , Horvitz-Thomson's estimator

Equal size cluster sampling: estimators of population mean and total and their standard errors, comparison of cluster sampling with SRS in terms of intra-class correlation coefficient.

Concept of multistage sampling and its application, two-stage sampling with equal number of second stage units, estimation of population mean and total. Double sampling in ratio and regression methods of estimation.

Concept of Interpenetrating sub-sampling.

**(ii) Econometrics:**

Nature of econometrics, the general linear model (GLM) and its extensions, ordinary least squares (OLS) estimation and prediction, generalized least squares (GLS) estimation and prediction, heteroscedastic disturbances, pure and mixed estimation.

Auto correlation, its consequences and tests. Theil BLUS procedure, estimation and prediction, multi-collinearity problem, its implications and tools for handling the problem, ridge regression.

Linear regression and stochastic regression, instrumental variable estimation, errors in variables, autoregressive linear regression, lagged variables, distributed lag models, estimation of lags by OLS method, Koyck's geometric lag model.

Simultaneous linear equations model and its generalization, identification problem, restrictions on structural parameters, rank and order conditions.

Estimation in simultaneous equations model, recursive systems, 2 SLS estimators, limited information estimators, k-class estimators, 3 SLS estimator, full information maximum likelihood method, prediction and simultaneous confidence intervals.

**(iii) Applied Statistics:**

Index Numbers: Price relatives and quantity or volume relatives, Link and chain relatives composition of index numbers; Laspeyre's, Paasches', Marshal Edgeworth and Fisher index numbers; chain base index number, tests for index number, Construction of index numbers of wholesale and consumer prices, Income distribution-Pareto and Engel curves, Concentration curve, Methods of estimating national income, Inter-sectoral flows, Inter-industry table, Role of CSO. Demand Analysis

Time Series Analysis: Economic time series, different components, illustration, additive and multiplicative models, determination of trend, seasonal and cyclical fluctuations.

Time-series as discrete parameter stochastic process, auto covariance and autocorrelation functions and their properties.

Exploratory time Series analysis, tests for trend and seasonality, exponential and moving average smoothing. Holt and Winters smoothing, forecasting based on smoothing.

Detailed study of the stationary processes: (1) moving average (MA), (2) auto regressive (AR), (3) ARMA and (4) AR integrated MA (ARIMA) models. Box-Jenkins models, choice of AR and MA periods.

Discussion (without proof) of estimation of mean, auto covariance and autocorrelation functions under large sample theory, estimation of ARIMA model parameters.

Spectral analysis of weakly stationary process, periodogram and correlogram analyses, computations based on Fourier transform.

**STATISTICS-IV (DESCRIPTIVE TYPE)**

**(Equal number of questions i.e. 50% weightage from all the subsections below and**

**candidates have to choose any two subsections and answer)**

**(i) Operations Research and Reliability:**

Definition and Scope of Operations Research: phases in Operation Research, models and their solutions, decision-making under uncertainty and risk, use of different criteria, sensitivity analysis.

Transportation and assignment problems. Bellman's principle of optimality, general formulation, computational methods and application of dynamic programming to LPP.

Decision-making in the face of competition, two-person games, pure and mixed strategies, existence of solution and uniqueness of value in zero-sum games, finding solutions in  $2 \times 2$ ,  $2 \times m$  and  $m \times n$  games.

Analytical structure of inventory problems, EOQ formula of Harris, its sensitivity analysis and extensions allowing quantity discounts and shortages. Multi-item inventory subject to constraints. Models with random demand, the static risk model. P and Q- systems with constant and random lead times.

Queuing models – specification and effectiveness measures. Steady-state solutions of M/M/1 and M/M/c models with associated distributions of queue-length and waiting time. M/G/1 queue and Pollaczek-Khinchine result.

Sequencing and scheduling problems. 2-machine n-job and 3-machine n-job problems with identical machine sequence for all jobs

Branch and Bound method for solving travelling salesman problem.

Replacement problems – Block and age replacement policies.

PERT and CPM – basic concepts. Probability of project completion.

Reliability concepts and measures, components and systems, coherent systems, reliability of coherent systems.

Life-distributions, reliability function, hazard rate, common univariate life distributions – exponential, weibull, gamma, etc. Bivariate exponential distributions. Estimation of parameters and tests in these models.

Notions of aging – IFR, IFRA, NBU, DMRL and NBUE classes and their duals. Loss of memory property of the exponential distribution.

Reliability estimation based on failure times in variously censored life-tests and in tests with replacement of failed items. Stress-strength reliability and its estimation.

**(ii) Demography and Vital Statistics:**

Sources of demographic data, census, registration, ad-hoc surveys, Hospital records, Demographic profiles of the Indian Census.

Complete life table and its main features, Uses of life table. Makehams and Gompertz curves. National life tables. UN model life tables. Abridged life tables. Stable and stationary populations.

Measurement of Fertility: Crude birth rate, General fertility rate, Age specific birth rate, Total fertility rate, Gross reproduction rate, Net reproduction rate.

Measurement of Mortality: Crude death rate, Standardized death rates, Age-specific death rates, Infant Mortality rate, Death rate by cause.

Internal migration and its measurement, migration models, concept of international migration. Net migration. International and postcensal estimates. Projection method including logistic curve fitting. Decennial population census in India.

**(iii) Survival Analysis and Clinical Trial:**

Concept of time, order and random censoring, likelihood in the distributions – exponential, gamma, Weibull, lognormal, Pareto, Linear failure rate, inference for these distribution.

Life tables, failure rate, mean residual life and their elementary classes and their properties.

Estimation of survival function – actuarial estimator, Kaplan – Meier estimator, estimation under the assumption of IFR/DFR, tests of exponentiality against non-parametric classes, total time on test.

Two sample problem – Gehan test, log rank test.

Semi-parametric regression for failure rate – Cox’s proportional hazards model with one and several covariates, rank test for the regression coefficient.

Competing risk model, parametric and non-parametric inference for this model.

Introduction to clinical trials: the need and ethics of clinical trials, bias and random error in clinical studies, conduct of clinical trials, overview of Phase I – IV trials, multicenter trials.

Data management: data definitions, case report forms, database design, data collection systems for good clinical practice.

Design of clinical trials: parallel vs. cross-over designs, cross-sectional vs. longitudinal designs, review of factorial designs, objectives and endpoints of clinical trials, design of Phase I trials, design of single-stage and multi-stage Phase II trials, design and monitoring of phase III trials with sequential stopping,

Reporting and analysis: analysis of categorical outcomes from Phase I – III trials, analysis of survival data from clinical trials.

**(iv) Quality Control:**

Statistical process and product control: Quality of a product, need for quality control, basic concept of process control, process capability and product control, general theory of control charts, causes of variation in quality, control limits, sub grouping summary of out of control criteria, charts for attributes p chart, np chart, c-chart, V chart, charts for

variables:  $\bar{X}$ ,  $(\bar{X}, R)$ ,  $(\bar{X}, \sigma)$  charts.

Basic concepts of process monitoring and control; process capability and process optimization. General theory and review of control charts for attribute and variable data; O.C. and A.R.L. of control charts; control by gauging; moving average and exponentially weighted moving average charts; Cu-Sum charts using V-masks and decision intervals; Economic design of X-bar chart.

Acceptance sampling plans for attributes inspection; single and double sampling plans and their properties; plans for inspection by variables for one-sided and two sided specification.

**(v) Multivariate Analysis:**

Multivariate normal distribution and its properties. Random sampling from multivariate normal distribution. Maximum likelihood estimators of parameters, distribution of sample mean vector.

Wishart matrix – its distribution and properties, distribution of sample generalized variance, null and non-null distribution of multiple correlation coefficients.

Hotelling's  $T^2$  and its sampling distribution, application in test on mean vector for one and more multivariate normal population and also on equality of components of a mean vector in multivariate normal population.

Classification problem: Standards of good classification, procedure of classification based on multivariate normal distributions.

Principal components, dimension reduction, canonical variates and canonical correlation — definition, use, estimation and computation.

**(vi) Design and Analysis of Experiments:**

Analysis of variance for one way and two way classifications, Need for design of experiments, basic principle of experimental design (randomization, replication and local control), complete analysis and layout of completely randomized design, randomized block design and Latin square design, Missing plot technique. Split Plot Design and Strip Plot Design.

Factorial experiments and confounding in  $2^n$  and  $3^n$  experiments. Analysis of covariance. Analysis of non-orthogonal data. Analysis of missing data.

**(vii) Computing with C and R :**

Basics of C: Components of C language, structure of a C program, Data type, basic data types, Enumerated data types, Derived data types, variable declaration, Local, Global, Parametric variables, Assignment of Variables, Numeric, Character, Real and String constants, Arithmetic, Relation and Logical operators, Assignment operators, Increment and decrement operators, conditional operators, Bitwise operators, Type modifiers and expressions, writing and interpreting expressions, using expressions in statements. Basic input/output.

Control statements: conditional statements, if - else, nesting of if - else, else if ladder, switch statements, loops in c, for, while, do - while loops, break, continue, exit ( ), goto and label declarations, One dimensional two dimensional and multidimensional arrays. Storage classes: Automatic variables, External variables, Static variables, Scope and lifetime of declarations.

Functions: classification of functions, functions definition and declaration, assessing a function, return statement, parameter passing in functions. Pointers (concept only).

Structure: Definition and declaration; structure (initialization) comparison of structure variable; Array of structures : array within structures, structures within structures, passing structures to functions; Unions accessing a union member, union of structure, initialization of a union variable, uses of union. Introduction to linked list, linear linked list, insertion of a node in list, removal of a node from list.

Files in C: Defining and opening a file, input – output operation on a file, creating a file, reading a file.

Statistics Methods and techniques in R.

**APPENDIX-II(A)**

**INSTRUCTIONS TO THE CANDIDATES FOR FILLING ONLINE APPLICATIONS**

Candidates are required to apply Online using the website [www.upsconline.nic.in](http://www.upsconline.nic.in).

Salient features of the system of Online Application Form are given hereunder:

- Detailed instructions for filling up online applications are available on the above mentioned website.
- Candidates will be required to complete the Online Application Form containing two stages viz. Part-I and Part-II as per the instructions available in the above mentioned site through drop down menus.
- The candidates are required to pay a fee of Rs.200/- Rupees Two Hundred only) [excepting SC/ST/Female/Persons with Benchmark Disability candidates who are exempted from payment of fee] either by depositing the money in any branch of State Bank of India by cash, or by using net banking facility of State Bank of India or by using any Visa/Master/RuPay Credit/Debit Card.
- Before start filling up Online Application, a candidate must have his photograph and signature duly scanned in the .jpg format in such a manner that each file should not exceed 300 KB each and must not be less than 20 KB in size for the photograph and signature.
- The candidate should have details of one Photo ID viz. Aadhar Card/ Voter Card / PAN Card / Passport/ Driving License / Any other photo ID Card issued by the State / Central Government. The details of this photo ID will have to be provided by the candidate while filling up the online application form. This photo ID will be used for all future references and the candidate is advised to carry this ID while appearing for the examination.

- The Online applications (Part I and II) can be filled from **10<sup>th</sup> June, 2020 to 30<sup>th</sup> June, 2020** till 18:00 Hrs.
- Applicants should avoid submitting multiple applications. However, if due to any unavoidable circumstances, any applicant submits multiple applications then he/she must ensure that the applications with higher RID is complete in all respects.
- In case of multiple applications, the applications with higher RID shall be entertained by the Commission and fee paid against one RID shall not be adjusted against any other RID.
- The applicants must ensure that while filling their Application Form, they are providing their valid and active E-Mail IDs as the Commission may use electronic mode of communication while contacting them at different stages of examination process.
- The applicants are advised to check their emails at regular intervals and ensure that the email addresses ending with @ nic.in are directed to their inbox folder and not to the SPAM folder or any other folder.
  - Candidates are strongly advised to apply online well in time without waiting for the last date for submission of Online Applications.
  - **Moreover, the Commission has introduced provision of withdrawal of application for the candidate, who does not want to appear at the Examination, he/she may withdraw his/her application.**

#### **Appendix-II (B)**

##### **IMPORTANT INSTRUCTIONS TO WITHDRAW APPLICATION**

1. Candidates are advised to go through the instructions carefully before filling up the request for withdrawal of application.
2. The Commission has provided the withdrawal facility from **07.07.2020 to 13.07.2020** (till 6.00 PM) to those candidates who do not want to appear at this Examination.
3. Candidates are advised to provide the details of registered application with registration-id which was completed and submitted finally. There is no provision for withdrawing of incomplete applications.
4. Before making the request for withdrawal, candidate must ensure that they have access to the registered mobile number and email-id which were provided by them at the time of submission of application. Separate OTPs will be sent by the Commission on the registered mobile number and email-id. Request for withdrawal will be accepted only after it is confirmed by validating the OTP details sent on candidate's mobile and email-id. Such OTPs will be valid for 30 Minutes only.
5. **Request for generating OTP for withdrawal of application will be accepted only till 5.30 PM on 13.07.2020.**
6. If a candidate has submitted more than one application form then the higher registration-id of Application (latest) will be considered for withdrawal and all earlier applications will be treated as cancelled automatically.
7. After the final acceptance of the request for online withdrawal of application, the candidate must print the authenticated receipt. Once application has been withdrawn by the candidate, it cannot be revived in future.
8. UPSC has no provision to refund any fee amount paid by candidates, so in case of successful withdrawal of application the fees will not be refunded.
9. On successful completion of withdrawal of application, an auto-generated email and SMS will be sent on candidate's registered email-id and mobile. In case any candidate has not submitted the request for withdrawal of application he/she may contact UPSC on email-id: [upscsoap@nic.in](mailto:upscsoap@nic.in) immediately.
10. Candidates are advised not to share the OTPs received on email and SMS to anybody.

#### **APPENDIX III**

##### **Special instructions to Candidates for Conventional Type papers**

1. **Articles permitted inside Examination Hall**  
Battery-operated pocket calculators of "non-programmable" type only, mathematical/engineering/drawing instruments, including a flat rule divided on the edges into inches and tens of an inch and into centimeters and millimeters, a slide rule, set squares, a protractors and a pair of compasses, pencils, coloured pencils, mapping pens, eraser, T-square and drawing board for use wherever necessary. Candidates are not allowed to bring with them any "Tables or Charts" for use in the Examination Hall.  
Mobile phones, bluetooth or any other communication devices are not allowed inside the premises where the examination is being conducted. Any infringement of these instructions shall entail disciplinary action including ban from future examinations.

Candidates are advised in their own interest not to bring any of the banned items including mobile phones/Bluetooth to the venue of the examination, as arrangements for safekeeping cannot be assured.

## **2. Tables to be supplied by UPSC**

If it is considered necessary for answering the questions set in any paper, the Commission may supply any of the following for reference purpose only :-

- (i) Mathematical/Physical, Chemical and Engineering Tables (including Logarithmic Tables);
- (ii) Steam Table (including Mollier Diagrams for Temperature up to 800°C and Pressure up to 500 Kgf/Cm);
- (iii) National Building Code of India 1970 or 1983 Group 2 Part VI;
- (iv) Any other special articles as may be necessary for the candidates to answer the questions set in the question paper.

After conclusion of the examination, return the above items to the invigilator.

## **3. Answers to be written in own hand**

Write the answers in your own hand in ink. Pencil may be used for maps, mathematical drawings or rough work.

## **4. Check Answer Book**

The candidate must write his/her roll number (and not his/her name) only in the space provided for the purpose on every answer book used by him/her. Before writing in the answer book, please see that it is complete. In case there are any missing pages, it should be got replaced.

Do not tear out any pages from the Answer Book. If you use more than one Answer Book, indicate on the cover of first Answer Book the total number of Answer Books used. Do not leave any blank, unused spaces between answers. If such spaces are left, score them out.

## **5. Answers in excess of prescribed number will be ignored**

The candidate must attempt questions strictly in accordance with the directions given on each question paper. If questions are attempted in excess of the prescribed number shall be valued and the remaining answers will be ignored.

**6.** Questions relating to graph/précis should be attempted only on graph/précis sheets to be supplied on demand by the invigilators. All loose sheets such as précis sheet, drawing papers, graph sheets etc. whether used or not, should be placed inside the answer books and fastened along with the additional answer book(s), if any. Candidates who fail to observe this instruction will be penalised. Do not write your roll number on these sheets.

## **7. Unfair means strictly prohibited**

Do not copy from the papers of any other candidates nor allow your papers to be copied nor give nor attempt to give nor obtain nor attempt to obtain irregular assistance of any description. It will be responsibility of every candidate to ensure that his/her answers are not copied by another candidate. Failure to do so will invite penalty, as may be awarded by the Commission for adoption of unfair means.

## **8. Conduct in Examination Hall**

Do not misbehave in any manner or create disorderly scene in the examination hall or harass or bodily harm the staff deployed for the conduct of examination. You will be severely penalized if you attempt to do so.

**9.** Please read carefully and abide by the instructions printed on the Question Paper and on the Answer Book supplied in the Examination Hall.

## **APPENDIX-IV**

### **Special Instruction to candidates for objective type tests**

1. Articles permitted inside Examination Hall  
Clip board or hard board (on which nothing is written), a good quality black ball pen for making responses on the Answer Sheet. Answer Sheet and sheet for rough work will be supplied by the invigilator.
2. Articles not permitted inside Examination Hall  
Do not bring into the Examination Hall any article other than those specified above e.g. books, notes, loose sheets, electronic or any other type of calculators, mathematical and drawing instruments, Log Tables, stencils of maps, slide rules, Test Booklets, rough sheets pertaining to earlier session(s), etc.

**Mobile phones, bluetooth or any other communication devices are not allowed inside the premises where the examination is being conducted. Any infringement of these instructions shall entail disciplinary action including ban from future examinations. Candidates are advised in their own interest not to bring any of the banned items including mobile phones to the venue of the examination, as arrangements for safekeeping cannot be assured.**

Candidates are advised in their own interest not to bring any of the banned items including mobile phones/Bluetooth to the venue of the examination, as arrangements for safekeeping cannot be assured.

- 3. Penalty for wrong Answers (in Objective Type Papers)**  
**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 candidates shall copy from the papers of any other candidate nor permit his papers to be copied nor give nor attempt to give not obtain nor attempt to obtain irregular assistance of any description.
- 5. Conduct in Examination Hall**  
 No candidates should misbehave in any manner or create disorderly scene in the Examination Hall or harass the staff employed by the Commission for the conduct of the examination. Any such misconduct will be severely penalised.
- 6. Answer Sheet Particulars**
- (i) Write in black ball pen your Centre and subject followed by Test Booklet series (in bracket), subject code and roll number at the appropriate space provided on the Answer Sheet at the top. Also encode your booklet series (A, B, C or D as the case may be), subject code and roll number with black ball pen in the circles provided for the purpose in the Answer Sheet. The guidelines for writing the above particulars and encoding the above particulars are given in Annexure. In case the booklet series is not printed on the Test Booklet or Answer Sheet is unnumbered, please report immediately to the invigilator and get the Test Booklet/Answer Sheet replaced.
- (ii) Candidates should note that any omission/mistake/discrepancy in encoding/filling of details in the OMR answer sheet, especially with regard to Roll Number and Test Booklet Series Code, will render the answer sheet liable for rejection.
- (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.
5. Do not write your name or anything other than the specific items of information asked for, on the Answer Sheet/Test Booklet/sheet for rough work.
8. Do not fold or mutilate or damage or put any extraneous marking in the Answer Sheet. Do not write anything on the reverse of the Answer Sheet.
9. Since the Answer Sheets will be evaluated on computerised machines, candidates should exercise due care in handling and filling up the Answer Sheets. **They should use black ball pen only to darken the circles. For writing in boxes, 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 Sheet on computerised machines, they should make these entries very carefully and accurately. The candidate must mark responses in the Answer Sheet with good quality black ball pen.**
- 10. Method of marking answers**  
 In the "OBJECTIVE TYPE" of examination, you do not write the answers. For each question (hereinafter referred to as "Item") several suggested answers (hereinafter referred to as "Responses") are given. You have to choose one response to each item. The question paper will be in the Form of TEST BOOKLET. The booklet will contain item bearing numbers 1, 2, 3 etc. Under each item, Responses marked (a), (b), (c), (d) will be given. Your task will be to choose the correct response. If you think there is more than one correct response, then choose what you consider the best response.  
 In any case, for each item you are to select only one response. If you select more than one response, your response will be considered wrong. In the Answer Sheet, Serial Nos. from 1 to 160 are printed. Against each numbers, there are circles marked (a), (b), (c) and (d). After you have read each item in the Test Booklet and decided which one of the given responses is correct or the best, you have to mark your response by completely blackening to indicate your response.  
 Ink pen or pencil should not be used for blackening the circle on the Answer Sheet.  
 For example, if the correct answer to item 1 is (b), then the circle containing the letter (b) is to be completely blackened with black ball pen as shown below :-  
**Example : (a) • (c) (d)**
- 11. Entries in Scannable Attendance List**  
 Candidates are required to fill in the relevant particulars with black ball pen only against their columns in the Scannable Attendance List, as given below :-



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 '9' (in the first vertical column) and '9' (in the second vertical column). You should then encode the Roll No. 081276. Do it thus similarly.

अनुक्रमांक

Roll Numbers

0	8	1	2	7	6
---	---	---	---	---	---

●	○	○	○	○	○
○	○	●	○	○	○
○	○	○	●	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	●
○	○	○	○	●	○
○	●	○	○	○	○
○	○	○	○	○	○

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

\* This is just illustrative and may not be relevant to your Examination.

**Certificate regarding physical limitation in an examinee to write**

This is to certify that, I have examined Mr./Ms./Mrs..... (name of the candidate with benchmark disability), a person with ..... (nature and percentage of disability as mentioned in the certificate of disability), S/o/D/o....., a resident of ..... (Village/District/State) and to state that he/she has physical limitation which hampers his/her writing capabilities owing to his/her disability.

**Signature**

**Chief Medical Officer/Civil Surgeon /  
Medical Superintendent of a Government Health Care Institution.**

**Note:** Certificate should be given by a specialist of the relevant stream/disability (eg. Visual Impairment – Ophthalmologist, Locomotor disability – Orthopaedic specialist/PMR).

**Appendix-VI**

***Letter of Undertaking for Using Own Scribe  
(To be filled by the candidates online to the Commission)***

*I....., a candidate with.....(name of the disability) appearing for the ..... (name of the examination)..... bearing Roll No..... at ..... (name of the centre) in the District ....., ..... (name of the State). My qualification is .....*

*I do hereby state that ..... (name of the scribe) will provide the service of scribe/reader/lab assistant for the undersigned for taking the aforesaid examination.*

*I do hereby undertake that his qualification is ..... In case, subsequently it is found that his/her qualification is not as declared by the undersigned and is beyond my qualification, I shall forfeit my right to the post and claims thereto.*

***(Signature of the candidates with Disability)***

**Place:**

**Date:**