

13. Scheme of the Examination:

13.1 The Computer Based Examination will be conducted in two tiers as indicated below:

13.1.1 Tier-I

13.1.2 Tier-II

13.2 Marks scored by candidates in Computer Based Examinations, if conducted in multiple shifts, will be normalized by using the formula published by the Commission vide Notice No: 1-1/2018-P&P-I dated 07-02-2019 and such normalized scores will be used to determine final merit and cut-off marks.

13.3 Tentative Answer Keys of the Computer Based Examinations will be placed on the website of the Commission after the Examination. Candidates may go through the Answer Keys and submit online representations, if any, within the stipulated time limit on payment of ₹ 100/- per question, which is non-refundable. Representations

received through any other mode e.g. letter, application, email, etc. will not be entertained. Representation regarding the Answer Keys will be scrutinized before finalizing the Answer Keys and the decision of the Commission in this regard will be final.

13.4 The schedule of examinations indicated in the Notice is tentative. Any change in the schedule of examinations will be informed to candidates only through the website of the Commission.

13.5 In the question papers, wherever necessary, the Metric systems of weights and measures will be used.

13.6 There shall be no provision for re-evaluation/ re-checking of the scores of any stage/ Tier(s) of the examination. No correspondence in this regard shall be entertained.

13.7 Scheme of Tier-I Examination:

Tier	Subject	Number of Questions	Maximum Marks	Time allowed
I	A. General Intelligence and Reasoning	25	50	1 hour (1 hour and 20 minutes for the candidates eligible for scribe as per Para-7.1, 7.2 and 7.3)
	B. General Awareness	25	50	
	C. Quantitative Aptitude	25	50	
	D. English Comprehension	25	50	

13.7.1 Tier-I will consist of Objective Type, Multiple choice questions. The questions will be set both in English & Hindi except for English Comprehension.

13.7.2 There will be negative marking of 0.50 for each wrong answer.

13.8 Scheme of Tier-II Examination:

Tier	Paper	Session	Subject	Number of Questions	Maximum Marks	Time allowed
II	Paper-I:	Session-I (2 hours and 15 minutes)	Section-I: Module-I: Mathematical Abilities Module-II: Reasoning and General Intelligence.	30 30	60*3 = 180	1 hour (For each section) (1 hours and 20 minutes for the candidates eligible for scribe as per Para-7.1, 7.2 and 7.3)

			Total = 60	
		Section-II: Module-I: English Language and Comprehension Module-II: General Awareness	45 25 Total = 70	70*3 = 210
		Section-III: Module-I: Computer Knowledge Module	20	20*3 = 60
	Session-II (15 minutes)	Section-III: Module-II: Data Entry Speed Test Module	One Data Entry Task	-
				15 Minutes (For each module) (20 minutes for the candidates eligible for scribe as per Para-7.1, 7.2 and 7.3)
Paper-II		Statistics	100	100*2 = 200 2 hours (2 hours and 40 minutes for the candidates eligible for scribe as per Para-7.1, 7.2 and 7.3)

13.8.1 Tier-II will include conducting of Paper-I & Paper-II in separate shift(s)/ day(s).

13.8.2 Paper-I is compulsory for all the posts.

13.8.3 Paper-II will be for only those candidates who apply for the posts of Junior Statistical Officer (JSO) in the Ministry of Statistics and Programme Implementation and Statistical Investigator Grade-II in the office of Registrar General of India (M/o Home Affairs) and who are shortlisted in Tier-I for these Posts.

13.8.4 Paper-I will include following three sections having two modules each:

13.8.4.1 **Section-I:**

13.8.4.1.1 **Module-I:** Mathematical Abilities

13.8.4.1.2 **Module-II:** Reasoning and General Intelligence.

13.8.4.2 **Section-II:**

13.8.4.2.1 **Module-I:** English Language and Comprehension

13.8.4.2.2 **Module-II:** General Awareness

13.8.4.3 **Section-III:**

13.8.4.3.1 **Module-I:** Computer Knowledge Test

13.8.4.3.2 **Module-II:** Data Entry Speed Test

13.8.5 Paper-I will be conducted in two sessions - Session –I & Session-II, on same day.

13.8.5.1 Session-I will include conducting of Section-I, Section-II and Module-I of Section-III. Therefore, duration of Session-I will be 2 hours and 15 minutes.

13.8.5.2 Section-I has two modules viz. Module-I (Mathematical Abilities) and Module-II (Reasoning and General Intelligence). The candidates will get one hour to complete this section. On completion of one hour, this section will get automatically closed.

13.8.5.3 Immediately after completion of Section-I, the two modules of Section-II viz. Module-I (English Language and Comprehension) and Module-II (General Awareness), will start. Section-II will also be for one hour and immediately on completion of one hour, this section will get automatically closed.

13.8.5.4 Section-III will have two modules. Module-I (Computer Knowledge Test) will commence immediately after completion of Section-II and will be for a duration of 15 minutes. On completion of Module-I of Section-III, Session-I will come to an end.

13.8.5.5 After the completion of Session-I, the candidates will get a break for re-registration for Session-II.

13.8.5.6 Session-II will include conducting of Module-II of Section-III i.e. Data Entry Speed Test. Therefore, duration of Session-II will be 15 minutes only.

13.8.6 **It will be mandatory for the candidates to qualify all the sections of Paper-I.**

13.8.7 Tier-II (Paper-I & Paper-II) will consist of Objective Type, Multiple choice questions, except for Module-II of Section-III of Paper-I. The questions will be set both in English & Hindi except for English Language and Comprehension module in Section-II of Paper-I.

13.8.8 There will be negative marking of 1 mark for each wrong answer in Section-I, Section-II and Module-I of Section-III of Paper-I and of 0.50 marks for each wrong answer in Paper-II.

13.8.9 Module-I of Section-III of Paper-I i.e. Computer Knowledge Test is mandatory but qualifying in nature. However, while shortlisting the candidates for the posts where Computer Proficiency is prescribed viz. Assistant Section Officer in CSS, MEA & AFHQ, Assistant in Serious Fraud Investigation Office (SFIO) under the Ministry of Corporate Affairs, Assistant (GSI) in the Ministry of Mines, Assistant in Indian Meteorological Department (Ministry of Earth Sciences), Inspector (CGST & Central Excise), Inspector (Preventive Officer), Inspector (Examiner) & Executive Assistant in CBIC and Postal Assistant/ Sorting Assistant in Department of Post etc., higher qualifying standards will be set in comparison to other posts.

13.8.10 Module-II of Section-III of Paper-I i.e. Data Entry Speed Test (DEST):

13.8.10.1 Module-II of Section-III of Paper-I will include conducting of a Data Entry Speed Test (DEST) for a duration of 15 minutes in Session-II on the same day.

13.8.10.2 The “Data Entry Speed Test” (DEST) Skill Test will be conducted for a passage of about 2000 (two thousand) key depressions for a duration of 15 (fifteen) minutes. Detailed instructions regarding Skill Test will be provided by the Regional Offices of the Commission. Information about evaluation of Typing Test/DEST are available on the Commission’s new website <https://ssc.gov.in> (‘For Candidates’).

13.8.10.3 DEST will be mandatory for all the posts; however, it will be qualifying in nature.

13.8.10.4 While shortlisting the candidates for the posts where either Computer Proficiency is prescribed (**as mentioned at Para 13.8.9**) or where DEST is prescribed viz. Tax Assistant in CBIC, Tax Assistant in CBDT, and UDC/ SSA in Central Bureau of Narcotics (Ministry of Finance) etc., higher qualifying standards will be set in comparison to other posts.

13.8.10.5 DEST will be conducted in the manner decided by the Commission for the purpose.

13.8.10.6 PwBD-OH candidates are eligible for exemption from attempting DEST, provided such candidates submit a Certificate in the prescribed format (**Annexure-XV**) to the Commission from the competent Medical Authority, i.e., the Civil Surgeon of a Government Health Care Institution declaring him to be permanently unfit for the Typing Test because of a physical disability. However, such exemption is not available for the posts where either Computer Proficiency is prescribed (**as mentioned at Para 13.8.9**) or where DEST is prescribed (**as mentioned at Para 13.8.10.4**) except for the post of the Tax Assistant in CBDT, for which exemption from attempting DEST is available. All other PwBD candidates are not eligible for exemption from DEST.

13.8.10.7 PwBD/ PwD candidates who are eligible for scribes as per Para-7.1, 7.2 and 7.3 of the Notice of Examination will be allowed

additional compensatory time of 5 (five) minutes in DEST. Only those VH candidates who opt for scribes in the written examination will be provided passage reader at the time of DEST.

13.9 **Indicative Syllabus (Tier-I):**

13.9.1 **Tier-I: General Intelligence & Reasoning:** It would include questions of both verbal and non-verbal type. This component may include questions on analogies, similarities and differences, space visualization, spatial orientation, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship concepts, arithmetical reasoning and figural classification, arithmetic number series, non-verbal series, coding and decoding, statement conclusion, syllogistic reasoning etc. The topics are, Semantic Analogy, Symbolic/Number Analogy, Figural Analogy, Semantic Classification, Symbolic/Number Classification, Figural Classification, Semantic Series, Number Series, Figural Series, Problem Solving, Word Building, Coding & de-coding, Numerical Operations, symbolic Operations, Trends, Space Orientation, Space Visualization, Venn Diagrams, Drawing inferences, Punched hole/ pattern-folding & un-folding, Figural Pattern-folding and completion, Indexing, Address matching, Date & city matching, Classification of centre codes/roll numbers, Small & Capital letters/numbers coding, decoding and classification, Embedded Figures, Critical thinking, Emotional Intelligence, Social Intelligence.

13.9.2 **General Awareness:** Questions in this component will be aimed at testing the candidates' general awareness of the environment around him and its application to society. Questions will also be designed to test knowledge of current events and of such matters of every day observations and experience in their scientific aspect as may be expected of any educated person. The test will also include questions relating to India and its neighboring countries especially pertaining History, Culture, Geography, Economic Scene, General Policy & Scientific Research.

13.9.3 **Quantitative Aptitude:** The questions will be designed to test the ability of appropriate use of numbers and number sense of the candidate. The scope of the test will be computation of whole numbers, decimals, fractions and relationships between numbers, Percentage. Ratio & Proportion, Square roots, Averages, Interest, Profit and Loss, Discount, Partnership Business, Mixture and Alligation, Time and distance, Time & Work, Basic algebraic identities of School Algebra & Elementary surds, Graphs of Linear Equations, Triangle and its various kinds of centres, Congruence and similarity of triangles, Circle and its chords, tangents, angles subtended by chords of a circle, common tangents to two or more circles, Triangle, Quadrilaterals, Regular Polygons, Circle, Right Prism, Right Circular Cone, Right Circular Cylinder, Sphere, Hemispheres, Rectangular Parallelepiped, Regular Right Pyramid with triangular or square base, Trigonometric ratio, Degree and Radian Measures, Standard Identities, Complementary angles, Heights and Distances, Histogram, Frequency polygon, Bar diagram & Pie chart.

13.9.4 **English Comprehension:** Candidates' ability to understand correct English, his basic comprehension and writing ability, etc. would be tested.

13.9.5 The questions in Parts A, B, & D will be of a level commensurate with the essential qualification viz. Graduation and questions in Part-C will be of 10th standard level.

13.10 **Indicative Syllabus (Tier-II):**

13.10.1 **Module-I of Session-I of Paper-I (Mathematical Abilities):**

13.10.1.1 **Number Systems:** Computation of Whole Number, Decimal and Fractions, Relationship between numbers.

13.10.1.2 **Fundamental arithmetical operations:** Percentages, Ratio and Proportion, Square roots, Averages, Interest (Simple and Compound), Profit and Loss, Discount, Partnership Business, Mixture and Alligation, Time and distance, Time and work.

13.10.1.3 **Algebra:** Basic algebraic identities of School Algebra and Elementary surds (simple problems) and Graphs of Linear Equations.

13.10.1.4 **Geometry:** Familiarity with elementary geometric figures and facts: Triangle and its various kinds of centres, Congruence and similarity of triangles, Circle and its chords, tangents, angles subtended by chords of a circle, common tangents to two or more circles.

13.10.1.5 **Mensuration:** Triangle, Quadrilaterals, Regular Polygons, Circle, Right Prism, Right Circular Cone, Right Circular Cylinder, Sphere, Hemispheres, Rectangular Parallelepiped, Regular Right Pyramid with triangular or square Base.

13.10.1.6 **Trigonometry:** Trigonometry, Trigonometric ratios, Complementary angles, Height and distances (simple problems only) Standard Identities like $\sin^2\theta + \cos^2\theta = 1$ etc.

13.10.1.7 **Statistics and probability:** Use of Tables and Graphs: Histogram, Frequency polygon, Bar-diagram, Pie-chart; Measures of central tendency: mean, median, mode, standard deviation; calculation of simple probabilities.

13.10.2 **Module-II of Section-I of Paper-I (Reasoning and General Intelligence):**

13.10.2.1 Questions of both verbal and non-verbal type. These will include questions on Semantic Analogy, Symbolic operations, Symbolic/ Number Analogy, Trends, Figural Analogy, Space Orientation, Semantic Classification, Venn Diagrams, Symbolic/ Number Classification, Drawing inferences, Figural Classification, Punched hole/ pattern-folding & unfolding, Semantic Series, Figural Pattern-folding and completion, Number Series, Embedded figures, Figural Series, Critical Thinking, Problem Solving, Emotional Intelligence, Word Building, Social

Intelligence, Coding and de-coding, Numerical operations, Other sub-topics, if any.

13.10.3 Module-I of Section-II of Paper-I (English Language and Comprehension):

13.10.3.1 Vocabulary, grammar, sentence structure, synonyms, antonyms and their correct usage; Spot the Error, Fill in the Blanks, Synonyms/ Homonyms, Antonyms, Spellings/ Detecting mis-spelt words, Idioms & Phrases, One word substitution, Improvement of Sentences, Active/ Passive Voice of Verbs, Conversion into Direct/ Indirect narration, Shuffling of Sentence parts, Shuffling of Sentences in a passage, Cloze Passage, Comprehension Passage. To test comprehension, three or more paragraphs will be given and questions based on those will be asked. At least one paragraph should be a simple one based on a book or a story and the other two paragraphs should be on current affairs, based on a report or an editorial.

13.10.4 Module-II of Section-II of Paper-I (General Awareness):

13.10.4.1 Questions are designed to test the candidates' general awareness of the environment around them and its application to society. Questions are also designed to test knowledge of current events and of such matters of everyday observation and experience in their scientific aspect as may be expected of an educated person. The test will also include questions relating to India and its neighboring countries especially pertaining to History, Culture, Geography, Economic Scene, General policy and scientific research.

13.10.5 Module-I of Section-III of Paper-I (Computer Proficiency):

13.10.5.1 **Computer Basics:** Organization of a computer, Central Processing Unit (CPU), input/ output devices, computer memory, memory organization, back up devices, PORTs, Windows Explorer. Keyboard shortcuts.

13.10.5.2 **Software:** Windows Operating system including basics of Microsoft Office like MS word, MS Excel and Power Point etc.

13.10.5.3 **Working with Internet and e-mails:** Web Browsing & Searching, Downloading & Uploading, Managing an E-mail Account, e-Banking.

13.10.5.4 **Basics of networking and cyber security:** Networking devices and protocols, Network and information security threats (like hacking, virus, worms, Trojan etc.) and preventive measures.

13.10.6 Paper-II (Statistics):

13.10.6.1 **Collection, Classification and Presentation of Statistical Data** – Primary and Secondary data, Methods of data collection; Tabulation of data; Graphs and charts; Frequency distributions; Diagrammatic presentation of frequency distributions.

13.10.6.2 **Measures of Central Tendency**- Common measures of central tendency – mean median and mode; Partition values- quartiles, deciles, percentiles.

13.10.6.3 **Measures of Dispersion**- Common measures dispersion – range, quartile deviations, mean deviation and standard deviation; Measures of relative dispersion.

13.10.6.4 **Moments, Skewness and Kurtosis** – Different types of moments and their relationship; meaning of skewness and kurtosis; different measures of skewness and kurtosis.

13.10.6.5 **Correlation and Regression** – Scatter diagram; simple correlation coefficient; simple regression lines; Spearman's rank correlation; Measures of association of attributes; Multiple regression; Multiple and partial correlation (For three variables only).

13.10.6.6 **Probability Theory** – Meaning of probability; Different definitions of probability; Conditional probability; Compound probability; Independent events; Bayes' theorem.

13.10.6.7 **Random Variable and Probability Distributions** – Random variable; Probability functions; Expectation and Variance of a random variable; Higher moments of a random variable; Binomial, Poisson, Normal and Exponential distributions; Joint distribution of two random variable (discrete).

13.10.6.8 **Sampling Theory** – Concept of population and sample; Parameter and statistic, Sampling and non-sampling errors; Probability and non-probability sampling techniques (simple random sampling, stratified sampling, multistage sampling, multiphase sampling, cluster sampling, systematic sampling, purposive sampling, convenience sampling and quota sampling); Sampling distribution (statement only); Sample size decisions.

13.10.6.9 **Statistical Inference** - Point estimation and interval estimation, Properties of a good estimator, Methods of estimation (Moments method, Maximum likelihood method, Least squares method), Testing of hypothesis, Basic concept of testing, Small sample and large sample tests, Tests based on Z, t, Chi-square and F statistic, Confidence intervals.

13.10.6.10 **Analysis of Variance** - Analysis of one-way classified data and two-way classified data.

13.10.6.11 **Time Series Analysis** - Components of time series, Determinations of trend component by different methods, Measurement of seasonal variation by different methods.

13.10.6.12 **Index Numbers** - Meaning of Index Numbers, Problems in the construction of index numbers, Types of index number, Different formulae, Base shifting and splicing of index numbers, Cost of living Index Numbers, Uses of Index Numbers.