

Total Marks 200

510

STATISTICS
(English Medium)

Category

A

510-STATISTICS

A51000256

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Seat No. of the Candidate

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Block No. of the Candidate

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Signature of the Candidate

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Signature of the Block Supervisor

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Important Instructions for Candidates

- (1) Please do not open the question booklet until you are told to do so.
- (2) During examination, if a candidate is found having any literature guide, guide, piece of paper, handwritten or printed paper, mobile phone, calculator, spy camera, headphone or any other equipments then the candidate will be considered as disqualified.
- (3) During the examination if candidates are found conversing with each other, making noise or not following supervisor's instructions then they will be considered as disqualified.
- (4) After receiving question paper please write your seat number in **OMR SHEET** at the correct given place.
- (5) Please do not write your seat number at any other place than the allotted one in the **OMR SHEET** and if any sign of your identity or recognition is found then you will be considered totally disqualified for the examination.
- (6) Signatures of both the supervisor and the candidate in the certificate of **OMR SHEET** are compulsory without which **OMR SHEET** will not be evaluated, so it is compulsory for the candidate to get signature of the supervisor.
- (7) Candidates can use blue/black ball pen. They cannot use pens or pencils of any other colour and also whitener.
- (8) No marks should be made on any of the options in the question paper.
- (9) There are total 200 questions in this question paper. There is only one answer to each question from the options A, B, C and D. Four options are given for each question. All the questions are compulsory.
Example: What is the capital of Gujarat?
(A) Ahmedabad (B) Gandhinagar (C) Vadnagar (D) Patan
Here, if option (B) Gandhinagar is correct then option (B) in the **OMR SHEET** will have to be darkened with pen. **A** **B** **C** **D**
- (10) One(1) mark is allotted to each correct answer. For each wrong answer 0.25 marks will be deducted. If a candidate does not want to answer any question then he/she will have to select option E. Negative marking will not be applicable for option E.
- (11) Cross marked answers, answers given on more than one option and answers re-marked after use of blade, eraser or whitener will be given **Negative 0.25 marks**.
- (12) Please hand over the **OMR SHEET** to the block supervisor after completion of examination before leaving the classroom. Any candidate failing to do so will be considered as disqualified for the examination.
- (13) Maximum time allotted for the examination is 180 minutes.
- (14) Most appropriate option will be considered as answer of the question.

- (1) How many Indian languages have been declared endangered by UNESCO
(A) 195 (B) 196 (C) 189 (D) 197
- (2) The National Education Policy (NEP) 2020, integrates _____ to root education in ancient knowledge of India and its contribution in modern India.
(A) Knowledgeable India (B) Indian Knowledge System
(C) Modern India (D) Ancient India
- (3) The full form of PARAKH is _____.
(A) Private Assessment, Report and Analysis of Knowledge for Holistic
(B) Performance Assessment, Review and Analysis of Knowledge for Holistic development
(C) Performance Assistant, Review and Analysis of knowledge for Holistic development
(D) Personal Assistant, Review and Analysis of Knowledge for Holistic development.
- (4) A scientist of Indian origin who made groundbreaking contribution in the study of DNA was _____.
(A) Radha Krushnan (B) Amartya Sen
(C) Hargovind Khurana (D) Dr. A.P.J. Abdul Kalam
- (5) The Three Tier Panchayati Raj System was recommended by _____.
(A) Mactapl Committee (B) British Committee
(C) Sevak Committee (D) Balwantrai Mehta Committee
- (6) Commonwealth Games were previously known as _____.
(A) European Games (B) Euro – Asian Games
(C) Common Games (D) British Empire Games
- (7) Who appoints CAG?
(A) Prime Minister (B) President
(C) Vice-President (D) Chief – Minister
- (8) The battle between Porus and Sikander was fought on the bank of _____ river.
(A) Chenab (B) Ravi
(C) Satluj (D) Jhelum

- (9) "Who among the following reigned during the Anno Domini Period?"
- (A) Chandragupt Maurya (B) King Ashok
(C) Khilji Dynasty and Tughlaq Dynasty (D) Bindusara
- (10) _____ is the most renowned form of dance of Maharashtra.
- (A) Ghumar (B) Kalbeliya
(C) Kachhghodi (D) Laavani
- (11). _____ was invented by Michael Faraday?
- (A) Penicillin
(B) Periodic Table
(C) Precious Metal - Radium
(D) Conversion of Kinetic Energy into Electric energy
- (12) _____ among the following was written by Manubhai Pancholi (Darshak)
- (A) Upanas (B) Socrates
(C) Anunay (D) Hayaati
- (13) Anup Kumar is a renowned _____ player.
- (A) Kho - Kho (B) Kabaddi
(C) Cricket (D) Football
- (14) _____ was Suggested by Swami Vivekanand to Promote nationalism in India.
- (A) Pride of the nation
(B) Public awareness and upliftment of the poor
(C) Inclusive Vision
(D) Cultural Pride
- (15) _____ is not a renewable energy resource.
- (A) Forest (B) Wind
(C) Natural Gas (D) Sunlight

- (16) _____ was considered as the "Soul of Indian constitution" by Dr. B. R. Ambedkar.
- (A) Right to Education
 - (B) Cultural and Educational Right
 - (C) Right to go against exploitation
 - (D) Right to the Constitutional Remedies
- (17) Panchayati Raj Institutions came to exist on _____ in Gujarat.
- (A) 1st May, 1960
 - (B) 20th April, 1993
 - (C) 15th August, 1947
 - (D) 1st April, 1963
- (18) _____ is not founded by the Government to implement the recommendations of Mudaliar Commission 1953.
- (A) Rural Higher Education Committee
 - (B) University Grants Commission
 - (C) All India Education Council
 - (D) All India Council of Sports
- (19) Astronaut Sunita Williams has an ancestral link with _____.
- (A) Karnal, Haryana
 - (B) Vadodara, Gujarat
 - (C) Mahesana, Gujarat
 - (D) Kurukshetra, Haryana
- (20) _____ hosted the Kabaddi World Cup 2025.
- (A) India
 - (B) England
 - (C) South Korea
 - (D) Malaysia
- (21) Open and Distance Learning (ODL) is included in _____ education.
- (A) Formal
 - (B) Informal
 - (C) Non-formal
 - (D) None of the above
- (22) "I never teach my pupils; I only attempt to provide the conditions in which they can learn" who quoted it?
- (A) Maharshi Arvind
 - (B) Albert Einstein
 - (C) Pestology
 - (D) Eric Crome

- (23) "A person must use the development of his individuality by aligning it to the social needs and ideals."
This is _____ aim of education.
- (A) an Individual (B) a Social
(C) a Peculiar (D) a Sovereign
- (24) _____ described education as a tri-polar process consisting of the teacher the learner the social environment or syllabus as a third pole".
- (A) John Dewey (B) John Adams
(C) Herbert Spencer (D) Benjamin S. Bloom
- (25) Idealism is also known as _____.
- (A) Idealism (B) Realism
(C) Naturalism (D) Pragmatism
- (26) John Dewey, Kilpatrick, and Mahatma Gandhi advocated _____.
- (A) Existentialism (B) Naturalism
(C) Idealism (D) Pragmatism
- (27) Social and National Integration can be attained through _____.
- (A) Joint Family (B) Requirement of Food
(C) Democracy (D) Population growth
- (28) What kind of education enables human to utilize free time more joyful and productive activities?
- (A) Non-formal Education
(B) Continuing Education
(C) Life-long Education
(D) Education through correspondence
- (29) The cultural objective of education emphasizes on _____.
- (A) to enrich a person with knowledge
(B) to inculcate ideals and morals in life
(C) to Transfer Knowledge, Art, Literature, Music from generation to generation.
(D) to enable a person to earn livelihood

- (30) "Human bears the competency of adapting to the situation and adapting one's needs to the situation" _____ form of pragmatism supports it.
- (A) Nominalistic Pragmatism (B) Experimental Pragmatism
(C) Biological Pragmatism (D) Humanistic Pragmatism
- (31) A person with IQ score 100, is placed in _____ category.
- (A) Average Intelligence (B) High Intelligence
(C) Lower Intelligence (D) Superior Intelligence
- (32) _____ type of Psychological conflict do Students Face when they neither want to stay at home nor go to school?
- (A) Approach – Avoidance (B) Approach – Approach
(C) Avoidance – Avoidance (D) Dual Approach Avoidance
- (33) A Psychologist who believed that "Motivation is cyclic"
- (A) Lipid (B) C.T. Morgan
(C) Lewin (D) Emilicuma
- (34) Which test is used to detect mental retardation among children?
- (A) Achievement Test (B) Reading Test
(C) Through General Observation (D) Intelligence Test
- (35) The full form of GATB is _____.
- (A) Great Attitude Test Box
(B) Global Attitude Test Book
(C) Global Aptitude Test Book
(D) General Aptitude Test Battery
- (36) _____ is placed the first among eight stages of Robert Gagne's approach.
- (A) Stimulus – Response Approach
(B) Verbal – Association Approach
(C) Problem – Solving Approach
(D) Chaining Approach

- (37) "Trial and Error Principle" of Thorndike is known as _____.
(A) Stimulus – Response Approach
(B) Theory of operant conditioning
(C) Cognitive Learning Theory
(D) Principle of motivation
- (38) After fulfilling basic Physiological need, the next level in Maslow's Hierarchy of needs is _____.
(A) Love and Belongingness
(B) Esteem Needs
(C) Self – Actualization needs
(D) Safety Needs
- (39) The measurement of intelligence was first successfully introduced by _____.
(A) Garrett and Menttest
(B) Binet and Simon
(C) Crow and Crow
(D) Thurston and Spareman
- (40) The learning graph remains extended and horizontal during ____ temporary stage.
(A) Learning
(B) Maturity
(C) Plateau
(D) End
- (41) To counsel a student towards the most suitable field of learning and future profession, educator usually rely on ____ test.
(A) Intelligence Test
(B) Personality Measurement Test
(C) Aptitude Test
(D) Diagnostic Test
- (42) To enable a student to develop their creativity fully and completely, maximum importance should be given to _____.
(A) Process
(B) Idea
(C) Excellence
(D) Creativity
- (43) While framing the teaching method in curriculum development, _____ state of students require prior consideration.
(A) Mental
(B) Physical
(C) Emotional
(D) Holistic

- (44) _____ is Pre-requisite in order to promote concentration in Students.
- (A) Proficiency of Teacher
(B) Selection of proper method, congruent to the unit
(C) Age level
(D) Mental level
- (45) Any action that is derived from internal motivation and different from temptation is called _____.
- (A) Improper
(B) Motivation
(C) Eligibility
(D) Distress
- (46) Classroom behaviour generally observes total _____ types of interactions.
- (A) Five
(B) Two
(C) Three
(D) One
- (47) Bakum developed an evaluation process to measure _____ development of student.
- (A) Physical
(B) Mental
(C) Holistic
(D) Social
- (48) _____ has released an education from the bandage of Time, Collection and number.
- (A) Internet
(B) Technology
(C) Website
(D) Open University
- (49) The research that scientifically studies the daily problems of the school is called, _____ research.
- (A) Pragmatic
(B) Action
(C) Conditioning
(D) Visiting
- (50) To find out the mid-point of the given group, _____ is calculated
- (A) Median
(B) Mode
(C) Mean
(D) Any of the above
- (51) _____ is also known as Skinnerian Instruction.
- (A) Branchial Instruction
(B) Linear Instruction
(C) Mathematical Instruction
(D) All of the above

(52) Ned Flanders' Interaction analysis categories comprises Ten main categories, out of that three are

(i) Teacher's Talk

(ii) Pupil's Talk

(iii) Silence

Which of the following shows the correct order?

(A) (i) 7 (ii) 1 (iii) 2

(B) (i) 4 (ii) 4 (iii) 2

(C) (i) 6 (ii) 3 (iii) 1

(D) (i) 7 (ii) 2 (iii) 1

(53) _____ is a correct formula for calculating Percentile Rate.

(A) $PR = 100 - \frac{(100R - 50)}{N}$

(B) $PR = 100 - \frac{(100R - 50)}{N}$

(C) $PR = 100 - \frac{(50R - 100)}{N}$

(D) $PR = 1 - \frac{(100R - 50)}{N}$

(54) _____ is a correct mean of 6, 9, 10, 12, 16, 17.

(A) 10

(B) 11

(C) 17

(D) 12

(55) "Teacher uses the change in gestures, modulation of voice and hands' movement so that students stay focused" – This is mainly applied in _____ skill.

(A) Introductory

(B) Illustration

(C) Learning aids Experiment Skill

(D) Stimulus change

(56) _____ will replace the (?)

3000, 1500, 500, 125, (?)

(A) 100

(B) 50

(C) 25

(D) 20

(57) 'A' is the sister of 'B'. 'C' is the mother of 'B'. 'D' is the father of 'C'. Then D is the _____ of A.

(A) Maternal Uncle (Mama)

(B) Father

(C) Maternal Uncle (Maasa)

(D) Maternal Grandfather

(58) _____ among the following cannot be framed by using the letter of word

“INDEPENDENCE”

(A) NICE

(B) PINE

(C) PENDING

(D) INDEED

(59) Kavya begins to walk to the south from point A. She turns left after walking 30 metres. Then she walks 40 metres straight and reaches the point 'B'. Now find the distance between 'A' and 'B'.

(A) 50 metres

(B) 35 metres

(C) 70 metres

(D) 120 metres

(60) If $B=2$, $BAG = 10$ then find the value of BOX .

(A) 11

(B) 12

(C) 41

(D) 42

(61) Find the correct odd one from the following.

(A) DEGJ

(B) MNPS

(C) PQTX

(D) TUWZ

(62) Five friends are sitting in a line, A is sitting right to B, but not sitting the first. C is sitting left to D. If B is sitting right to E then who is exactly in the middle?

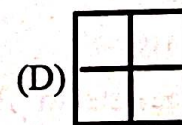
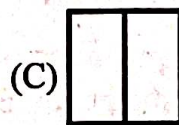
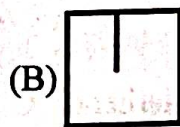
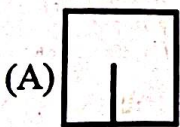
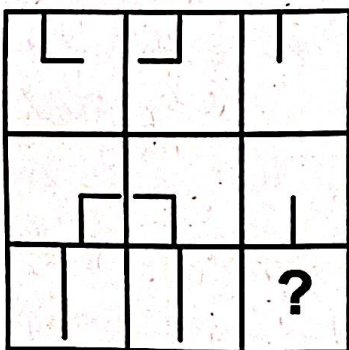
(A) A

(B) B

(C) D

(D) E

(63) Figure is given. _____ among the option correctly replaces (?).



- (64) 34, 18, 10, 6, 4, _____.
 (A) 0 (B) 1 (C) 2 (D) 3
- (65) If DOG is coded as '4157' Then LION will be _____.
 (A) 1271514 (B) 1291514
 (C) 1291312 (D) 1181514
- (66) There are total 65 students in a line. A stands 36th from the left, B Stands 36th from the right then total _____ students must be standing between both A and B.
 (A) 9 (B) 13
 (C) 15 (D) 11
- (67) _____ will replace the (?)
 ?
 15 6 3
 19
- (A) 91 (B) 610
 (C) 691 (D) 587
- (68) Thermometer : Temperature :: Earthquake : _____.
 (A) Scale (B) Seismograph
 (C) Anemometer (D) Odometer
- (69) The angle formed by the minute and hour hands at 4:00 pm is _____.
 (A) 120° (B) 100°
 (C) 80° (D) 60°
- (70) _____ among the following will stay first if arranged in alphabetical order.
 (A) Overbid (B) Outstanding
 (C) Oval (D) Outstep

(71) કયા વાક્યમાં અવ્યયનો ઉપયોગ થતો નથી ?

(A) તે પાસ થયો કેમ કે તેણે ખૂબ મહેનત કરેલી.

(B) શાબાશ છે એ બહાદૂર જુવાનને !

(C) એ પ્રાણઘાતક અકસ્માતથી તે મરી જાત.

(D) એ ચોરની પેઠે ઘરમાં ઘૂસ્યો.

(72) કયું વાક્ય કર્મણિ પ્રયોગમાં નથી ?

(A) તને વિમાન દેખાય છે ?

(B) મેં શીષસિન કર્યું.

(C) મને વાત સમજાય છે.

(D) મારે આસને બેસવું છે.

(73) A સાથે Bનાં સાચાં જોડકાં દર્શાવતો વિકલ્પ કયો છે ?

A

B

(a) લખવાનું આપોને

(i) ભવિષ્યકૃદંત

(b) માગ્યા મેહ વરસે નહીં

(ii) સંબંધક ભૂ.કૃ.

(c) લખી લખીને થાક્યો

(iii) હેત્વર્થ

(d) વાંચવા આવજો

(iv) ભૂતકૃદંત

(A) (a) i, (d) ii, (b) iii, (c) iv

(B) (b) i, (c) ii, (d) iii, (a) iv

(C) (c) i, (b) ii, (d) iii, (a) iv

(D) (a) i, (c) ii, (d) iii, (b) iv

(74) કયા જોડકામાંના શબ્દો એક પ્રકારનો જ સમાસ દર્શાવે છે ?

(A) તપોધન, પાઠવેતર

(B) ધનશ્યામ, કાપુરુષ

(C) કલ્પલતા, શ્રીયુત

(D) શેષશાયી, સ્વચ્છંદ

(75) એ શબ્દ શોધો કે જેનો અર્થ અન્ય કરતાં ભિન્ન છે.

(A) પુંડરિક

(B) પર્યંક

(C) રાજીવ

(D) શતદલ

(76) સાચી જોડણી પસંદ કરો.

(A) હિમસૂતા

(B) હીમસુતા

(C) હીમસૂતા

(D) હિમસુતા

(77) એ, થી, થકી, વડે વગેરે પ્રત્યયો કઈ વિભક્તિમાં આવે છે ?

(A) સંપ્રદાન

(B) અપાદાન

(C) સંબંધ

(D) કરણ

(78) પોતાની વાતને કે વિષયને સ્પષ્ટ કરવાનો પ્રયત્ન કરતા ગદ્યને કયા પ્રકારનું ગદ્ય કહેવામાં આવે છે ?

(A) વાદાત્મક

(B) વિવરણાત્મક

(C) વર્ણનાત્મક

(D) ભાવાત્મક

- (79) તમતમારે, જુદાજુદા, દૂરદૂરથી વગેરે કયા પ્રકારના શબ્દો છે ?
- (A) નામયોગી શબ્દો (B) સંયુક્ત શબ્દો
(C) સામાસિક શબ્દો (D) દ્વિરુક્તિવાળા શબ્દો
- (80) નીચેનામાંથી પરિભાષવાચક વિશેષણ જણાવો.
- (A) આટલું (B) આવું
(C) કડવું (D) પહેલું
- (81) નીચેનામાંથી કયા વિકલ્પમાં તમામ શબ્દોની જોડણી વ્યાકરણની દૃષ્ટિએ સંપૂર્ણ સાચી છે ?
- (A) શારીરિક, આશીર્વાદ, જિજ્ઞવિષા, સુશ્રુષા
(B) શારીરિક, આશીર્વાદ, જિજ્ઞવિષા, શુશ્રુષા
(C) શારીરિક, આશિર્વાદ, જિજ્ઞવિષા, શુશ્રુષા
(D) શારીરિક, આશિર્વાદ, જિજ્ઞવીષા, શુશ્રુષા
- (82) નીચેનામાંથી કયો શબ્દ 'અશ્વ'નો પર્યાયવાચી શબ્દ નથી ?
- (A) હાય (B) વાજ
(C) તોખાર (D) કુંજર
- (83) વાક્યશુદ્ધિના નિયમ અનુસાર નીચેનામાંથી વ્યાકરણની દૃષ્ટિએ શુદ્ધ વાક્ય પસંદ કરો.
- (A) મેં આજે એક ગાય અને એક બળદને આવતી જોઈ.
(B) મેં આજે એક ગાય અને એક બળદ આવતાં જોયાં.
(C) મેં આજે એક ગાય અને એક બળદ આવતા જોયો.
(D) મેં આજે એક ગાય અને બળદને આવતી જોઈ.
- (84) નીચેના વાક્યમાં વ્યાકરણીય રીતે કયો શબ્દપ્રયોગ ખોટો છે ? "તેણે મને સહૃદયતાપૂર્વક આવકાર આપ્યો."
- (A) તેણે
(B) સહૃદયતાપૂર્વક
(C) આવકાર
(D) આપ્યો
- (85) લેખનકાર્ય કરતી વખતે વાક્યના અંતે કે વચ્ચે કોઈ વિગત લખવાની બાકી રહી ગઈ હોય, ત્યારે તેને ઉમેરવા માટે કયા ચિહ્નનો ઉપયોગ થાય છે ?
- (A) લોપચિહ્ન (/) (B) કાકપદ / હંસપદ (^)
(C) લઘુરેખા (-) (D) ફુદડી (*)

(86) Pair the words with their antonyms.

Words

Antonyms

(a) lazy

(i) diligent

(b) active

(ii) blunt

(c) sharp

(iii) inert

(d) fertile

(iv) barren

(A) (c) i, (d) ii, (a) iii, (b) iv

(B) (a) ii, (c) iii, (b) i, (d) iv

(C) (c) ii, (d) i, (b) iii, (a) iv

(D) (a) i, (d) iii, (c) ii, (b) iv

(87) Which word has no suffix.

(A) Health

(B) Library

(C) Embrace

(D) Marriage

(88) Find out the odd pair.

(A) proud - pride

(B) bond - bind

(C) grieve - grief

(D) lose - loss

(89) Arrange these sentences in proper order to describe an accident-scene.

(i) Passengers were told to be ready to quit the ship.

(ii) Everyone knew there was fire on board.

(iii) Smoke oozed up between the planks.

(iv) Flames broke out here and there.

(v) Most people bore the shock bravely.

(A) iii, ii, v, iv, i

(B) i, ii, iv, iii, v

(C) iv, iii, ii, v, i

(D) iii, iv, ii, i, v

(90) Select the sentence with almost similar meaning to the sentence "At the moment the duck looked exhausted."

(A) The duck looked dreadful

(B) The duck was looking for a place to hide

(C) The duck looked very tired.

(D) The duck seemed unhappy.

(91) Put proper preposition in the blank. He was looking his lost keys.

(A) at

(B) for

(C) after

(D) into

- (92) he finds a job, his family will starve. Fill in the blank with proper word.
 (A) It (B) Unless (C) As (D) However
- (93) The harder you work, the result you will get.
 (A) good (B) best
 (C) better (D) lower
- (94) Select the similar word for Inventory.
 (A) Summary (B) Schedule
 (C) Index (D) Questionnaire
- (95) All the crows are black. We find a white crow, put proper adverb to complete the sentence.
 (A) frequently (B) usually
 (C) rarely (D) always
- (96) Which expression best conveys the idea ?
 (A) During the curfew, the streets wearing desolate look.
 (B) During the curfew, the streets wore a desolate look.
 (C) During the curfew, the streets have had worn desolate looks
 (D) During the curfew, the streets has been wearing desolation looks
- (97) What is the correct noun form of the verb 'compel' ?
 (A) Compelation (B) Compulsion
 (C) Compulsory (D) Compellment
- (98) Fill in the blank with the correct preposition : "The committee is totally opposed the new proposal."
 (A) for (B) against
 (C) to (D) with
- (99) Fill in the blanks with appropriate articles : "He is heir to the throne and honest man."
 (A) a, a (B) an, a (C) an, an (D) the, a
- (100) Identify the correct verb according to subject-verb Agreement : "Neither the principal nor the teachers present at the meeting yesterday."
 (A) was (B) were (C) are (D) is

- 101) Which diagram should be used to compare mutually related sub-data?
- (A) Multiple bar diagram (B) Simple divided bar diagram
(C) Percentage divided bar diagram (D) Pictogram
- 102) For a continuous variable, classes are 2.25 – 3.75, 4 – 5.5, 5.75 – 7.25, 7.5 – 9.00, 9.25 – 10.75, then what is the lower boundary point of the third class?
- (A) 5.5 (B) 5.625
(C) 5.7 (D) 5.75
- 103) The geometric mean of two numbers is 10. If the numbers are a^2 and b^2 , find a and b.
- (A) $a = 5$ $b = 20$
(B) $a = 4$ $b = 25$
(C) $a = 2$ $b = 50$
(D) $a = 2$ $b = 5$
- 104) The average wage of workers in factory A and factory B is ₹ 6,000 and ₹ 10,000 respectively. If the combined average of the workers of both the factories is ₹ 7,500. Find the proportion of workers in two factories.
- (A) 5 : 3 (B) 4 : 5
(C) 6 : 2 (D) 3 : 7
- 105) The median of observations $a-6$, $a+2$, a , $a-4$, $a-5$ is 20. Find the value of a.
- (A) 20 (B) 16
(C) 24 (D) 26
- 106) Give the formula to find co-efficient of Quartile deviation.
- (A) $\frac{Q_3 - Q_1}{2}$ (B) $\frac{Q_3 + Q_1}{2}$
(C) $\frac{Q_3 - Q_1}{Q_3 + Q_1}$ (D) $\frac{Q_3 + Q_1}{Q_3 - Q_1}$
- 107) If mean of a variable is 20 and the co-efficient of variation is 75%, then what is the variance of the variable?
- (A) 15 (B) 225
(C) 75 (D) 20

- (108) The mean and standard deviation for a variable x are 15 and 3 respectively. If $y = 5x + 3$ then find the mean and standard deviation of y .
- (A) 15 and 3 (B) 78 and 15
(C) 75 and 9 (D) 45 and 3
- (109) If 25th and 75th percentiles of a frequency distribution are 34.35 and 43.25 respectively, then find its Quartile Deviation.
- (A) 4.45 (B) 38.8
(C) 8.9 (D) 50
- (110) For a frequency distribution of monthly overtime (in hours) of employees of a company, the difference between 2 extreme quartiles is 48 and their sum is 218. If the co-efficient of skewness is -0.125 , find the median.
- (A) 106 (B) 112
(C) 0.22 (D) 170
- (111) The Co-efficient of a skewed frequency distribution is 0.8 If its standard deviation is 10 and mean is 38, find its median.
- (A) 114 (B) 106
(C) 38.42 (D) 35.33
- (112) How many new arrangements can be made using all the letters of the word 'AHMEDABAD'?
- (A) 3,62,880 (B) 3,62,879
(C) 30,240 (D) 30,239
- (113) A man has 8 friends in which 5 are engineers, and 3 are doctors. He wants to invite 3 friends on a dinner such that at least 1 doctor must be included. In how many ways can he invite them?
- (A) 120 (B) 46
(C) 20 (D) 104
- (114) 5 adults and 3 children are to be arranged for a photograph. In how many ways can they be arranged in a row so that no 2 children are together?
- (A) 120 (B) 240
(C) 14,400 (D) 720

- (115) Find the range of the following:
 $f: A \rightarrow B$ $A = \{2, 3, 4\}$; $B = \{2, 3, 4, 5, 6\}$;
 $f(x) = x + 2$
- (A) $R_f = \{2, 3, 4\}$ (B) $R_f = \{2, 3, 4, 5, 6\}$
 (C) $R_f = \{4, 5, 6\}$ (D) $R_f = \{3, 4, 5\}$
- (116) There are 5 Statistics and 4 Accounts books from different publishers. From these, 3 Statistics and 2 Accounts books are to be displayed in a shelf. In how many ways, the books can be displayed?
- (A) 7200 (B) 60
 (C) 120 (D) 180
- (117) Find the value of the following. $(\sqrt{4} + 1)^3 - (\sqrt{4} - 1)^3$
- (A) 26 (B) 28
 (C) 30 (D) 32
- (118) The first term of a G.P. is 1, and the sum of its n terms is 3280. If the common ratio of the G.P. is 3. Find the number of terms.
- (A) 6 (B) 7
 (C) 8 (D) 9
- (119) The sum of first 6 terms of a G.P. is 364. If the common ratio is 3, then find the first term.
- (A) 1 (B) 2
 (C) 3 (D) 4
- (120) The cost of living index number is increased from 180 to 260 during a certain time period, and the wage is increased from 14,000 to 19,500. Find the real loss or gain of the worker.
- (A) ₹ 650 (B) ₹ 722
 (C) ₹ 778 (D) ₹ 800
- (121) "A University elective course with students from different departments, years, and interests, all attending a lecture together", is an example of _____.
- (A) Finite population (B) Infinite population
 (C) Homogeneous population (D) Heterogeneous population

- (122) "A part of a population taken from the population to study some characteristics of the population is called ____.
- (A) Population (B) Sample
(C) Data (D) Survey
- (123) Name the first statistician who has used the word statistics first time?
- (A) Gottfried Achen Wall (B) Bernoulli
(C) Fisher (D) John Sinclair
- (124) "Tabulation is a link between collection of data and drawing conclusion from them." The above definition is given by which statistician?
- (A) Karl Pearson's (B) Tuttle
(C) Prof. E. Conare (D) Bowley
- (125) When the data volume is numerically large then which of the following diagrams is to be drawn?
- (A) One dimensional (B) Two dimensional
(C) Pictogram (D) Bi-Pictogram
- (126) ISOTYPE is the short name of ____.
- (A) Indian System of Typographic Pictorial Education
(B) International System of Typographic Pictorial Education.
(C) Indian Standard Typographic Pictorial Education
(D) International Standard Typographic Pictorial Education
- (127) What is the formula of finding lower limit of class.
- (A) $Class\ interval - \frac{Mid - value}{2}$
(B) $Class\ interval + \frac{Mid - value}{2}$
(C) $Mid\ value - \frac{Class\ interval}{2}$
(D) $Mid\ value + \frac{Class\ interval}{2}$
- (128) Which average gives a bird eye view of the whole data?
- (A) Mean (B) Median
(C) Mode (D) Quartiles

- (129) If x is a positive number and if the median of $x, \frac{x}{4}, \frac{x}{8}, \frac{3x}{2}, \frac{5x}{8}, \frac{9x}{8}$ and $2x$ is 1. Find 3rd observation.
- (A) $\frac{5}{8}$ (B) $\frac{2}{8}$
 (C) 2 (D) $\frac{1}{8}$
- (130) Bimodal Distribution is also known as ____.
- (A) Mean (B) Mean Deviation
 (C) Mode (D) Median
- (131) _____ describes how far observations are away from their central value of an average.
- (A) Measure of dispersion (B) Mean deviation
 (C) Range (D) Quartile deviation
- (132) The mean and variance of 50 observations are 16 and 4, find the sum of square of observations.
- (A) 6400 (B) 12000
 (C) 13000 (D) 26000
- (133) What is basic objective of the study of dispersion?
- (A) To measure Central Tendency (B) To analyze relationships
 (C) To predict outcomes (D) To measure the degree of scatterness
- (134) For negative skewness which of the following is relevant?
- (A) $2M < Q_3 + Q_1$ (B) $2M > Q_3 + Q_1$
 (C) $2M = Q_3 + Q_1$ (D) $Q_3 - Q_1 = M - Q$
- (135) If $Q_3 = 18$ and if $D_1 = M = 5:6$ if $Q_1 = 10$ find j .
- (A) 0.5 (B) 0.05
 (C) -0.5 (D) -0.05
- (136) In which method of sampling each member of the population has equal chance of being selected in the sample?
- (A) Stratified random (B) Ordered random
 (C) Systematic random (D) Simple random

(137) If $n_{C_4} = n_{C_6}$, then value of $n =$ _____.

(A) 4

(B) 6

(C) 10

(D) 8

(138) In usual notations, which of the following relations between permutation and combination is true?

(A) $n_{C_r} = n_{P_r} \times r!$

(B) $n_{P_r} = n_{C_r} \times r!$

(C) $n_{P_r} = \frac{n_{C_r}}{r!}$

(D) $n_{C_r} = \frac{n_{P_r}}{r!}$

(139) Random number tables were published first time in _____.

(A) 1939

(B) 1927

(C) 1955

(D) 1966

(140) Which sampling is affected the most if there is hidden periodicity in population?

(A) Simple random sampling

(B) Stratified random sampling

(C) Systematic sampling

(D) Systematic population

(141) Which method of finding trend is best to eliminate the effect of repetitive short term variations?

(A) Graphical Method

(B) Semi - Average Method

(C) Moving Average Method

(D) Least Squares Method

(142) 80 tickets are sold in a lottery and of them 2 tickets bear prizes. A person has two tickets of that lottery. Find the probability that he will get prize.

(A) $\frac{2}{80}$

(B) $\frac{78}{80}$

(C) $\frac{156}{3160}$

(D) $\frac{157}{3160}$

(143) What is $P(A)$ according to statistical definition of probability?

(A) $P(A) = \frac{m}{n}$

(B) $P(A) = \frac{n}{m}$

(C) $P(A) = \lim_{n \rightarrow \infty} \frac{m}{n}$

(D) $P(A) = \lim_{n \rightarrow \infty} \frac{n}{m}$

(144) If $\lim_{x \rightarrow 4} \frac{2}{5x+k} = \frac{1}{5}$, then find the value of k .

(A) -20

(B) -15

(C) -10

(D) -5

(145) Find the derivative of $y = 3x^2 + 6x + 18$. For which value of $\frac{dy}{dx} = 0$?

(A) +2

(B) -2

(C) +1

(D) -1

(146) A situation in which 'Hypothesis is false, but we accept it' - is called which type of error?

(A) Type 1 error

(B) Type 2 error

(C) Type 3 error

(D) Type 4 error

(147) "The yield of paddy (y), not only depends on soil fertility (x_1), but also on the amount of water used (x_2) the quantity of chemical fertilizers applied (x_3) - Name the regression model.

(A) Simple Linear Regression

(B) Multiple Linear Regression

(C) Logistic Regression

(D) Polynomial Regression

(148) Which time series model is used, when the seasonal variations exhibit an increasing or decreasing trend?

(A) $y_t = T_t + C_t + S_t + I_t$

(B) $y_t = T_t - C_t - S_t - I_t$

(C) $y_t = T_t \cdot C_t \cdot S_t \cdot I_t$

(D) $y_t = T_t \cdot C_t \cdot I_t + S_t$

(149) If the different positive numbers are assigned as weights to the past and current values of a time series, the method is called _____.

(A) Linear Weighting

(B) Exponential Smoothing

(C) Custom / Subjective Weighting

(D) Numerical Optimization

(150) Besides monitoring, which tools are used in the evaluation of capability and in making continuous improvements in statistical process control?

(A) Control chart

(B) Histogram

(C) Scatter diagram

(D) Cause and effect diagram

- (151) Monitoring a process by periodically examining sample outputs of the process and taking corrective actions as and when necessary is called ____.
- (A) Open – Loop Control (B) Closed – Loop Control
(C) Online Process Control (D) Cascade Control
- (152) If an observation falls outside certain Limits, it is logical to suspect. That something is wrong – The control Limits on a control chart are set up using which Limits.
- (A) 1σ Limits (B) 2σ Limits
(C) 3σ Limits (D) 4σ Limits
- (153) Suppose $f: A \rightarrow B$. If for any two different elements of domain A , their images or functional values are same, then function f is called ____.
- (A) One – One function (B) Constant function
(C) Many – One function (D) Range of function
- (154) For $f: A \rightarrow B$ what is the range of f ?
- (A) $f(A) = \{f(x)/x \in A\}$ (B) $f(B) = \{f(x)/x \in B\}$
(C) A (D) B
- (155) Four consecutive terms of a geometric progression are usually assumed as ____.
- (A) a, ar^2, ar^4, ar^6 (B) $\frac{a}{r^2}, \frac{a}{r}, a, ar^6$
(C) $\frac{a}{r^3}, \frac{a}{r}, ar, ar^3$ (D) a, ar, ar^2, ar^4
- (156) If three terms a, b, c are in geometric progression then the relationship among them is ____.
- (A) $\frac{b}{a} = \frac{c}{d}$ (B) $a^2 = bc$
(C) $ba = cb$ (D) $\frac{a}{b} = \frac{c}{a}$
- (157) Which index number is used by Reserve Bank of India to take necessary step to control inflation by studying the changes in price level?
- (A) Index number of industrial production
(B) Wholesale price index number
(C) Cost of living index number
(D) Index number of national income

- (158) In construction of cost of living index number, which prices of commodities are taken into consideration?
- (A) Market price (B) Wholesale price
(C) Retail price (D) Average price
- (159) The relation is $y = a - bx$, where a and b are constant then which type of correlation can be said?
- (A) Perfect positive (B) Partial positive
(C) Perfect negative (D) Partial negative
- (160) The time series of which of the following variables shows decreasing trend?
- (A) The variations in death rate due to a specific epidemic
(B) Prices of shares during recession in stock market
(C) Continuously decreasing death rate
(D) The variations in the demand of an item due to new technology.
- (161) Write the event symbolically when only event A occurs.
- (A) $A \cup B'$ (B) $A' \cup B'$
(C) $A' \cup B$ (D) $A \cap B'$
- (162) What type of variable are height, weight, blood pressure and maximum temperature?
- (A) Discrete variable (B) Continuous variable
(C) Qualitative variable (D) Categorical variable
- (163) Which of the following is true for a binomial distribution with negative skewness?
- (A) Mean = $\frac{n}{2}$ (B) Mean = n
(C) Mean > $\frac{n}{2}$ (D) Mean < $\frac{n}{2}$
- (164) What is $\frac{dy}{dx}$ if $y = \frac{1}{\sqrt[3]{x}}$?
- (A) $\frac{1}{3}$ (B) $\frac{-1}{3\sqrt{x}}$
(C) $\frac{-1}{3x^{\frac{4}{3}}}$ (D) $-3x^2$

- (165) Find $f'(2)$ if $f(x) = \frac{4x^5 + 3x^3 + 2x^2 + 24}{x^2}$
- (A) 360 (B) 30
(C) 45 (D) 90
- (166) $nC_r + nC_{r-1} = \text{_____}$
- (A) $n-1C_r$ (B) $n+1C_r$
(C) nC_n (D) nC_{n-r}
- (167) Who gave product moment method of finding correlation co-efficient?
- (A) Karl Pearson (B) Bowley's
(C) C. F. Gauss (D) Sir Francis Galton
- (168) What is the full form of C.F. while calculating rank correlation co-efficient?
- (A) Correlation factor
(B) Correction factor
(C) Correlation coefficient
(D) Correct co-efficient
- (169) The unit increase in the value of the independent variable is x then approximate increase in the value of dependent variable y by b units will be?
- (A) $b \geq 0$ (B) $b > 0$
(C) $b < 0$ (D) $b \leq 0$
- (170) While obtaining the regression line, what will be the sum of the square of errors?
- (A) Minimum (B) Maximum
(C) Zero (D) One
- (171) State the notation used for the disturbance variable of the linear model of a time series.
- (A) Δ_t (B) e_t
(C) u_t (D) \hat{e}_t
- (172) "The era of prosperity" with which characteristic moment of a time series would you associate?
- (A) Trend (B) Cyclical
(C) Random (D) Seasonal

- (173) Find the probability of having 5 Monday in the month of February of a leap year.
- (A) $1/7$ (B) $2/7$
(C) $3/7$ (D) $5/7$
- (174) Determine the type of function of $h: R \rightarrow R, h(t) = t^2 + 3t - 12$
- (A) Many – One function (B) One – One function
(C) Equal function (D) Constant function
- (175) \cup and ϕ are two _____ events.
- (A) Independent Events (B) Dependent events
(C) Elementary events (D) Complementary events
- (176) The extreme quartiles of normal distribution are 20 and 30. Find its mean.
- (A) 5 (B) 10
(C) 50 (D) 25
- (177) What is the formula for elasticity of demand?
- (A) $\frac{p}{x} \times \frac{dx}{dp}$ (B) $\frac{-x}{p} \cdot \frac{dp}{dx}$
(C) $\frac{-p}{x} \cdot \frac{dx}{dp}$ (D) $\frac{-p}{x} \cdot \frac{dp}{dx}$
- (178) Which method cannot be used for a bivariate frequency distribution?
- (A) Spearman's rank correlation
(B) Karl Pearson's product moment method
(C) Scatter diagram
(D) Least square method
- (179) The extreme quartiles of a normal distribution are 28 and 52. Find its means.
- (A) 28 (B) 52 (C) 40 (D) 80
- (180) Data on the variables below were recorded for a study in a school in Ahmedabad. Which one of these is a continuous variable?
- (A) Age (B) Year of Birth
(C) Number of Students admitted in class XI (D) Number of Students Studying in the school.

- (181) A teacher uses real life data like students' heights to explain mean and median. This approach is _____.
- (A) Abstract teaching (B) Activity based learning
(C) Rate learning (D) Lecture method
- (182) Teaching Statistics through graphs and charts mainly develops _____.
- (A) Psychomotor domain (B) Emotional domain
(C) Cognitive domain (D) Affective domain
- (183) A teacher asks students to collect survey data from their classmates. This is an example of _____.
- (A) Experiential learning (B) Theoretical learning
(C) Passive learning (D) Memorization
- (184) Diagnostic test is conducted _____.
- (A) On completion of degree course
(B) In the mid of academic year
(C) In the beginning of academic year
(D) At the end of academic year
- (185) Teaching standard deviation with visual representation mainly helps in _____.
- (A) Memorization (B) Concept clarity
(C) Creating complexities (D) Screening the weak students
- (186) How does data interpretation help students in real life?
- (A) Memorizing formulas (B) Defeating others
(C) Proving oneself greater (D) Making informed decision
- (187) Median is more appropriate than mean when _____.
- (A) Data is symmetrical (B) There are no outliers
(C) Data has extreme values (D) All values are same
- (188) A real estate agent uses median house price instead of mean because _____.
- (A) It is easier to calculate (B) It avoids the effect of very expensive houses
(C) It gives higher values (D) It counts houses

- 189) _____ promotes statistical thinking.
- (A) Solving repetitive sums
(B) Analyzing real data sets
(C) Memorizing definitions
(D) Copying notes
- 190) _____ development is the most prominent during adolescence?
- (A) Moral development
(B) Language development
(C) Physical development
(D) Emotional development
- 191) _____ proposed the theory of cognitive development including the formal operational stage.
- (A) B. F. Skinner
(B) Jean Piaget
(C) Erik Erikson
(D) Sigmund Freud
- 192) Kinesthetic learners are best helped by _____.
- (A) Watching videos
(B) Listening to lectures
(C) Hands – on - activities and experiments
(D) Memorizing textbooks
- 193) Learning traits can be influenced by _____.
- (A) Intelligence
(B) Family environment
(C) Destiny
(D) Both biological and environment factors
- 194) A teacher wants students to understand variation in scores visually. Which among the following is the best tool?
- (A) Histogram
(B) Line diagram
(C) Oral discussion only
(D) Written notes
- 195) Some students in statistics class understand concept better when they discuss in groups. This shows the benefits of _____.
- (A) Individual Learning Method
(B) Teacher Centered Method
(C) Peer Learning and Collaborative Method
(D) Inductive – Deductive Method
- 196) To make statistics learning interesting, a teacher should _____.
- (A) Integrate the foreign data
(B) Integrate data from remote past
(C) Integrate real life data
(D) Integrate fictitious data

(197) According to Erikson, the main Psychological task of adolescence is _____.

- (A) Trust vs Mistrust
- (B) Intimacy vs Isolation
- (C) Industry vs Inferiority
- (D) Identity vs Role confusion

(198) _____ motivation tends to increase during adolescence.

- (A) Peer approval and social recognition
- (B) External reward only
- (C) Fear based motivation
- (D) Monetary reward only

(199) Concept of 'Learning by doing' is emphasized by _____.

- (A) Jean Piaget
- (B) John Dewey
- (C) Paulo Freire
- (D) Jerome Bruner

(200) "It is easier to build strong children than to repair a broken men?"

A main message in this quote is _____.

- (A) Childhood experiences are less important
- (B) Discipline can recover childhood negligence
- (C) Adulthood has no influence of childhood
- (D) Early education and nurturing are crucial

