

Question Booklet No. :

CEHT/2021

Register  
Number

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2021

**HANDLOOM TECHNOLOGY/ TEXTILE TECHNOLOGY/  
TEXTILE MANUFACTURE  
(Diploma Standard)**

Duration : Three Hours]

[Total Marks : 300

Read the following instructions carefully before you begin to answer the questions.

**IMPORTANT INSTRUCTIONS**

1. You will be supplied with this question booklet 15 minutes prior to the commencement of the examination.
2. This question booklet contains **200** questions. Before answering the questions, you are requested to check whether all the questions are printed serially and ensure that there are no blank pages in the question booklet. **If any defect is noticed in the question booklet, it shall be reported to the invigilator within the first 10 minutes and get it replaced with a complete question booklet. If the defect is reported after the commencement of the examination, it will not be replaced.**
3. Answer **all** the questions. All the questions carry equal marks.
4. You must write your register number in the space provided on the top right side of this page. Do not write anything else on the question booklet.
5. An answer sheet will be supplied to you separately by the room invigilator to shade the answers. Instructions regarding filling of answers etc., which are to be followed mandatorily, are provided in the answer sheet and in the memorandum of admission (Hall Ticket).
6. You shall write and shade your question booklet number in the space provided on page one of the answer sheet with **BLACK INK BALL POINT PEN**. If you do not shade correctly or fail to shade the question booklet number, your answer sheet will be invalidated.
7. Each question comprises of five responses (answers) : i.e. (A), (B), (C), (D) and (E). You have to select **ONLY ONE** correct answer from (A) or (B) or (C) or (D) and shade the same in your answer sheet. If you feel that there are more than one correct answer, shade the one which you consider the best. **If you do not know the answer, you have to mandatorily shade (E).** In any case, choose **ONLY ONE** answer for each question. If you shade more than one answer for a question, it will be treated as a wrong answer even if one of the given answers happens to be correct.
8. You should not remove or tear off any sheet from this question booklet. You are not allowed to take this question booklet and the answer sheet out of the examination room during the time of the examination. After the examination, you must hand over your answer sheet to the invigilator. You are allowed to take the question booklet with you only after the examination is over.
9. **You should not make any marking in the question booklet except in the sheets before the last page of the question booklet, which can be used for rough work. This should be strictly adhered to.**
10. Failure to comply with any of the above instructions will render you liable for such action as the Commission may decide at their discretion.

SEAL

SPACE FOR ROUGH WORK

0800008

1. The breaking elongation of polyester fibre is

- (A) 3 – 10% (B) 20 – 70%  
(C) 12 – 50% (D) 10 – 20%  
(E) Answer not known

2. The polyester fibre melts at

- (A) 220 – 240°C (B) 255 – 265°C  
(C) 300 – 310°C (D) 280 – 290°C  
(E) Answer not known

3. The chemical used in the Xanthation process in the manufacture of viscose rayon is

- (A) Carbon disulphide  
(B) Carbon disulphate  
(C) Carbon trisulphide  
(D) Carbon disulphite  
(E) Answer not known

4. Thermal conductivity (mW/(mk)) of cotton and polyester is

- (A) 1 : 10 (B) 1 : 5  
(C) 2 : 3 (D) 1 : 2  
(E) Answer not known

5. Jute is cultivated once in
- (A) 3 months (B) 6 months  
(C) 12 months (D) 24 months  
(E) Answer not known
6. Identify the chemical dissolves viscose but not cotton.
- (A) Sulphuric acid (B) Sodium zincate  
(C) Formic acid (D) Meta cresol  
(E) Answer not known
7. Among the following fibers, which has triangular cross-section with rounded corners.
- (A) Degummed silk (B) Polyester  
(C) Acrylic (D) Ramie  
(E) Answer not known
8. Cotton Fibre dissolves in
- (A) 70% Sulphuric Acid  
(B) 75% Sulphuric Acid  
(C) 70% Hydrochloric Acid  
(D) 75% Hydrochloric Acid  
(E) Answer not known
9. The tenacity of viscose fibre in wet state is
- (A) 1.5 g/d (B) 2.5 g/d  
(C) 3 g/d (D) 3.5 g/d  
(E) Answer not known

10. The rotation of double nozzle in air jet spinning is  
 (A)  One nozzle rotates in clockwise and the other nozzle rotates in anticlockwise  
 (B) Both nozzles rotates in clockwise direction  
 (C) Both nozzles do not rotate  
 (D) Both nozzles rotates in anticlockwise direction  
 (E) Answer not known
11. The maximum production rate in Rotor spinning is  
 (A)  200 m/min (B) 150 m/min  
 (C) 40 m/min (D) 400 m/min  
 (E) Answer not known
12. Ratio of ring diameter to cop diameter is  
 (A) 1 : 2 (B) 1 : 3  
 (C)  2 : 1 (D) 3 : 1  
 (E) Answer not known
13. Neps are  
 (A) increases at blow room and card  
 (B)  increases at blow room and reduces at card  
 (C) decreases at blow room and increases at card  
 (D) decreases at blow room and card  
 (E) Answer not known
14. The twist contraction is given by the formula of  
 (A)   $\text{Contraction} = \frac{\text{Mean untwisted length}}{\text{Twisted yarn length}}$   
 (B)  $\text{Contraction} = \frac{\text{Untwisted length}}{\text{Twisted yarn length}}$   
 (C)  $\text{Contraction} = \frac{\text{Twisted yarn length}}{\text{Mean untwisted length}}$   
 (D)  $\text{Contraction} = \frac{\text{Twisted yarn length}}{\text{Untwisted length}}$   
 (E) Answer not known

15. Sequence of combing is  
(A)  Feeding → Nipping → Combing → Detaching  
(B) Feeding → Combing → Nipping → Detaching  
(C) Feeding → Detaching → Combing → Nipping  
(D) Feeding → Combing → Detaching → Nipping  
(E) Answer not known
16. Speed of Krischner Beater in blow room line is  
(A)  800 – 900 rpm (B) 1000 – 1400 rpm  
(C) 1500 – 2000 rpm (D) above 2000 rpm  
(E) Answer not known
17. The extracted trash in a blow room is 2.8% and trash in the Bales is 4% then the cleaning efficiency of a Blow Room is given by  
(A) 50% (B) 60%  
(C) 65% (D)  70%  
(E) Answer not known
18. Choose the correct order of production flow  
(A)  lap, sliver, roving, yarn (B) sliver, roving, yarn, lap  
(C) roving, yarn, sliver, lap (D) yarn, lap, roving, sliver  
(E) Answer not known
19. Weight of single cotton fibre is  
(A) 4 grams (B) 0.4 grams  
(C) 400  $\mu\text{g}$  (D)  4  $\mu\text{g}$   
(E) Answer not known
20. The objective of Ginning process is to  
(A)  Separation of fibre from the seed (B) Dirt separation  
(C) Trash separation (D) Chaff  
(E) Answer not known

21. If 1350 metres of silk yarn weigh  $7\frac{1}{2}$  gms, what is the count of the yarn in metric denier system?
- (A) 30 denier (B) 40 denier  
(C) 50 denier (D) 200 denier  
(E) Answer not known
22. Calculate the Tex count of Nylon yarn, if the length of yarn is 20,000 meters and its weight is of 400 grams
- (A) 25 Tex (B) 30 Tex  
(C) 15 Tex (D) 20 Tex  
(E) Answer not known
23. What is the weight of 270 metres of nylon yarn whose count is 200 denier?
- (A) 5 gms (B) 6 gms  
(C) 8 gms (D) 60 gms  
(E) Answer not known
24. Indirect system of counting is generally used for
- (A) Polyester (B) Nylon  
(C) Acrylic (D) Cotton  
(E) Answer not known
25. To find out Linen count \_\_\_\_\_ yards of length is required.
- (A) 400 (B) 500  
(C) 300 (D) 200  
(E) Answer not known

26. Calculate the mass of warp per square meter if ends/cm = 28, crimp of warp = 2.5 % and Linear density of warp = 18 tex.
- (A) 31.6 gm (B) 41.6 gm  
 (C)  51.6 gm (D) 61.6 gms  
 (E) Answer not known
27. The actual production of a High speed slasher is 32,400 yards per day of 8 hours. If the calculated speed is 90 yards per minute, find out the efficiency of the machine.
- (A) 72% (B) 73%  
 (C)  75% (D) 90%  
 (E) Answer not known
28. Hank of roving is 3.0 and delivery count of a Ring frame is  $90^S$  Ne, then what will be the total Draft?
- (A) 10 (B) 20  
 (C)  30 (D) 40  
 (E) Answer not known
29. A yarn has 26 TPI and a count of  $60^S$  in the cotton system. What is the twist multiplier?
- (A) 3.30 (B) 2.98  
 (C)  3.36 (D) 4.32  
 (E) Answer not known
30. Sliver weight is 5 grams/meter and coiler calender rollers surface speed is 40 m/min. Calculate production of a card in kg/hour.
- (A) 8 (B)  12  
 (C) 20 (D) 200  
 (E) Answer not known



31. As per British standard stitch, class 600 is
- (A) Chain stitch (B) Lock stitch  
(C) Overedge chain stitch (D)  Covering chain stitch  
(E) Answer not known
32. Metric needle sizing in sewing is related to
- (A) Eye diameter (B) Groove diameter  
(C) Point diameter (D)  Blade diameter  
(E) Answer not known
33. Grading is a technique used for
- (A) By super imposing one size to another  
(B)  Maximise (or) minimise the size of pattern  
(C) Changing the size of pattern  
(D) Individual pieces of pattern moving to base pattern  
(E) Answer not known
34. The Lock stitch in sewing is performed by
- (A) Intralooping (B) Interlooping  
(C)  Interlacing (D) Knotting  
(E) Answer not known
35. Round knife cutting machine not suitable for
- (A)  cutting of curved line pattern (B) cutting of straight line pattern  
(C) cutting of cross line pattern (D) cutting of zig-zag line pattern  
(E) Answer not known

36. The knitted structure design which consists of two fabrics knitted with different yarns or colours, one produced on the dial and the other on the cylinder is called as
- (A)  Tuck lace structure (B) Punto diroma structure  
(C) Cortina structure (D) Gabardine structure  
(E) Answer not known
37. Tuck stitch means
- (A) Releasing of old loop without receiving new one  
(B)  It is composed one (or) more tuck loops and knitted loops  
(C) Composing of float loop and more loops  
(D) Combination of old and new loops  
(E) Answer not known
38. The angle of cloth take up in a raschel machine is
- (A)  $90^\circ - 120^\circ$  (B)  $130^\circ - 140^\circ$   
(C)   $170^\circ - 175^\circ$  (D)  $60^\circ - 80^\circ$   
(E) Answer not known
39. Plain single-jersey fabric is the
- (A) simplest warp knitted structure  
(B)  simplest weft knitted structure  
(C) simplest warp and weft interlacement  
(D) simplest adhesive bonded structure  
(E) Answer not known
40. In knitting, the loop is produced by clearing the old loop below the latch by raising the needle and feeding a new yarn into the hook is called
- (A)  Knit loop (B) Float loop  
(C) Tuck loop (D) Held loop  
(E) Answer not known

41. The shedding mechanism of double acting double lift dobby has
- (A)  Open shed principle
  - (B)  Semi-open shed principle
  - (C)  Centre closed shed principle
  - (D)  Bottom closed shed principle
  - (E)  Answer not known
42. The number of Heald Shafts controlled by the Dobby shedding mechanism is
- (A) 18 – 20
  - (B) 19 – 27
  - (C)  20 – 28
  - (D) 21 – 42
  - (E)  Answer not known
43. In a double lift double cylinder Jacquard 800 needles and 800 hooks give a repeat of only on \_\_\_\_\_ Ends.
- (A) 200
  - (B)  400
  - (C) 600
  - (D) 800
  - (E)  Answer not known
44. The function of shedding mechanism is
- (A)  Raise and lower the heald frame
  - (B)  Raise the heald frame only
  - (C)  Lower the heald frame only
  - (D)  Attach the heald frame only
  - (E)  Answer not known

45. \_\_\_\_\_ is also known as the weaver's beam.
- (A)  Warp beam (B) Back beam  
(C) Breast beam (D) Cloth beam  
(E) Answer not known
46. The width of the reed wire along the direction of the warp yarns when drawn through the reed is known as the
- (A) Drawing of the reed wire (B) Denting of the reed wire  
(C) Knotting of yarn of the reed wire (D)  Gauge number of the reed wire  
(E) Answer not known
47. The sizing agent used for polyester is
- (A) Poly vinyl alcohol (B) Poly vinyl chloride  
(C)  Vinyl copolymers (D) Poly vinyl acetate  
(E) Answer not known
48. One of the object of sizing is to
- (A)  produce weavers beam (B) produce yarn  
(C) produce fibre (D) produce fabric  
(E) Answer not known
49. The maximum speed of wax application at the warper is
- (A) 280 m/min (B) 300 m/min  
(C)  600 m/min (D) 800 m/min  
(E) Answer not known

50. According to the pigment theory of colour, the primary colours are
- (A) Red, Green, Blue (B)  Red, Yellow, Blue  
(C) Red, Brown, Blue (D) Red, Green, Yellow  
(E) Answer not known
51. Chanderi is a popular product of
- (A) Towels (B) Lungi  
(C) Shirt (D)  Sarees  
(E) Answer not known
52. Choose the incorrect statement, with respect to tyre cord manufacturing.
- (A) The filling yarn (weft) do not contribute to the performance of the ply.  
(B) Relatively fine filling yarns are used  
(C)  Relatively rigid filling yarns are used  
(D) Existence of filling yarn may adversely affect the cord geometry.  
(E) Answer not known
53. Normally Compression bandage exerts pressure in the range of
- (A) 1-10 mm Hg (B)  10-50 mm Hg  
(C) 100-150 mm Hg (D) 200-500 mm Hg  
(E) Answer not known
54. Flame retardant properties of fiber is assessed by
- (A) Biological oxygen demand (B) Chemical oxygen demand  
(C)  Limiting oxygen Index (D) Chemical oxygen Index  
(E) Answer not known

55. Compression bandage are mostly used for prevention of
- (A) Leg ulceration (B)  Soft - tissue implants  
(C) Deep vein thrombosis (D) Varicose veins  
(E) Answer not known
56. The type of yarn mostly used in air bag manufacturing is
- (A) Cotton (B) Polyester  
(C)  Nylon (D) Kevlar  
(E) Answer not known
57. Which one is not a natural polymer?
- (A) Collagen (B) Alginate  
(C) Chitin (D)  Polyethylene  
(E) Answer not known
58. The typical curing conditions adopted in chemical bonding technique is
- (A) 80-100° C for 2 - 4 min (B) 100-110° C for 2 - 4 min  
(C)  120-140° C for 2 - 4 min (D) 180-200° C for 2 - 4 min  
(E) Answer not known
59. Find the ODD one, with respect to hydro-entanglement of nonwoven.
- (A) Spun lace (B) Water jet needling  
(C)  Spun laid (D) Hydraulic entanglement  
(E) Answer not known

60. The chemical used to give flame Retardant finish to cotton fabric is
- (A) Borax (B) Urea  
(C) Formaldehyde (D) Sulphur  
(E) Answer not known
61. Flurochemicals are used for
- (A) Resin finish (B) Water repellent finish  
(C) Flame repellent finish (D) Soil resistant finish  
(E) Answer not known
62. Reducing agent used in Discharge style of printing is
- (A) Sodium Chloride (B) Soda ash  
(C) Rongalite C (D) Zinc Chloride  
(E) Answer not known
63. The most widely used for preparing the screen for printing is
- (A) Thin film method (B) Photochemical method  
(C) Photo voltaic method (D) Thin film coating method  
(E) Answer not known
64. The dyes printed directly at the required places leaving the other portions white is called as
- (A) Direct style (B) Resist style  
(C) Discharge style (D) Tie and dye  
(E) Answer not known

65. The Dyeing machine is used to dye the light weight knitted fabric without any danger of fabric by a
- (A) Beam dyeing (B) Jet dyeing  
(C)  Soft overflow Jet dyeing (D) Winch dyeing  
(E) Answer not known
66. Reactive dyes form a \_\_\_\_\_ bond.
- (A)  Covalent (B) Hydrogen  
(C) Ionic (D) Vander Waals force  
(E) Answer not known
67. The force of attraction responsible for fixation of reactive dye is
- (A)  Covalent bond (B) Ionic bond  
(C) Hydrogen bond (D) Vander waals forces  
(E) Answer not known
68. The condition adopted for mercerizing of cotton fabric is
- (A)  Caustic soda - 31 to 35%, Temperature - 15 to 18° C  
(B) Caustic soda - 60 to 65%, Temperature - 30° C  
(C) Caustic soda - 70 to 75%, Temperature - 70° C  
(D) Caustic soda - 15 to 20%, Temperature - 20° C  
(E) Answer not known
69. The objective of desizing process is to
- (A)  Removal of size present in the fabric  
(B) Removal of colouring matter in the fabric  
(C) By increasing the strength of yarn  
(D) Removal of natural impurities in the fabric  
(E) Answer not known



70. Identify the incorrect statement with respect to the production of mixed colour effects?
- (A) By blending differently coloured fibres which have been dyed in the sliver condition.
  - (B) By introducing very larger tufts of dyed fibres into the slivers at the later stages of the process.
  - (C) By printing the spun thread in bands of different colours.
  - (D) By twisting together differently coloured threads producing various kinds of fancy twist yarns.
  - (E) Answer not known
71. Crossing (CROSSING) ends are used for wearing these fabrics.
- (A) Pique
  - (B) Velvet
  - (C) Leno
  - (D) Welts
  - (E) Answer not known
72. Depending upon the weight of the velveteen, the width wise shrinkage ranges from
- (A) 5 to 8%
  - (B) 9 to 11.5%
  - (C) 12.5 to 20%
  - (D) 22.5 to 25%
  - (E) Answer not known
73. The suitable draft type to construct Extra warp weave is
- (A) Straight
  - (B) Pointed
  - (C) Divided
  - (D) Skip
  - (E) Answer not known
74. The warp faced twill is
- (A) 2/3
  - (B) 2/2
  - (C) 5/1
  - (D) 1/5
  - (E) Answer not known

75. Identify the incorrect statement with respect to construction of backed fabrics.
- (A) The face and back threads are marked out on design paper
  - (B) They are marked out according to the order of insertion
  - (C) The face weave is inserted on the face threads only using normal convention for warp backing
  - (D)  The back weave is inserted on face threads only using the normal and reversed convention.
  - (E) Answer not known
76. The type of twill weave used to produce Jeans fabric is
- (A)  3 shaft twill
  - (B) 4 shaft twill
  - (C) 5 shaft twill
  - (D) 6 shaft twill
  - (E) Answer not known
77. The type of weave consist of crinkled (rough) surface on the fabric is
- (A) Twill weave
  - (B) Huck a back weave
  - (C)  Crepe weave
  - (D) Brighton honey comb weave
  - (E) Answer not known
78. Self stitched double cloths are constructed by
- (A)  Stitching from face to back
  - (B) Stitching on face side alone
  - (C) Stitching on back side alone
  - (D) Stitching on Zig Zag pattern
  - (E) Answer not known

79. \_\_\_\_\_ draft is suitable for making diamond weaves.
- (A)  Pointed (B) Broken  
(C) Combined (D) Divided  
(E) Answer not known
80. Among the following drafting systems and their uses, which is incorrectly paired.
- (A) Broken – Herringbone twill  
(B) Divided – Double cloth  
(C) Grouped – Stripe and check design  
(D)  Skip – Diamond weave  
(E) Answer not known
81. While testing the thickness of fabric the rate of lowering the presser foot of the thickness gauge is
- (A)  $\frac{1}{100}$  in/sec (B)  $\frac{2}{100}$  in/sec  
(C)  $\frac{1}{1000}$  in/sec (D)   $\frac{2}{1000}$  in/sec  
(E) Answer not known
82. The instrument used for measuring abrasion resistance is
- (A) Shirley tester  
(B) Shirley abrasion Coater  
(C)  Martindale abrasion tester  
(D) Martindale abrasion Coater  
(E) Answer not known

83. In Air flow instruments, the relationship between specific surface  $S$ , the maturity ratio  $M$  and the fibre weight per centimetre  $H$  is

(A)   $S = \text{constant} \times \frac{1}{\sqrt{(MH)}}$  (B)  $S = \text{constant} \times \sqrt{(MH)}$

(C)  $S = \text{constant} \times (MH)$  (D)  $S = \text{constant} \times \left(\frac{M}{H}\right)$

(E) Answer not known

84. The maturity of fibre can be estimated by

(A)  Caustic Soda swelling method (B) Acid method

(C) Baersorter (D) Stelometer

(E) Answer not known

85. The formula for extension percentage is

(A)  $\text{Extension} = \frac{\text{Elongation}}{\text{Initial length}} \times 100\%$

(B)   $\text{Extension} = \frac{\text{Elongation}}{\text{Initial length}} \times 100\%$

(C)  $\text{Extension} = \text{Force/linear density} \times 100\%$

(D)  $\text{Extension} = \frac{\text{Initial length}}{\text{Elongation}} \times 100\%$

(E) Answer not known

86. The instrument used for measuring fibre length

(A) Sheffield micronaire (B)  Baersorter

(C) Stelometer (D) Shirley stiffness tester

(E) Answer not known

87. In sampling zoning Technique is used to test
- (A) Fabric (B) Yarn  
 (C)  Fibre (D) Filament  
 (E) Answer not known
88. Among the given options identify the false statement
- (A) Median is the value that divides the area under frequency in two equal parts  
 (B)  Mode is the highest value in the population  
 (C) Range is the difference between highest and lowest value  
 (D) Percentage mean range is expressed as a percentage of mean  
 (E) Answer not known
89. The textile testing values of a mill are given below  
 40, 38, 39, 38, 40, 39, 40, 40, 41, 42, 40, 39, 40, 38, 40, 41, 38, 40, 42, 42 which one of the following values gives the mode of these values.
- (A) 42 (B)  40  
 (C) 38 (D) 41  
 (E) Answer not known
90. CV of a doubled strand is
- (A)  $\frac{\text{CV of individual strand}}{2\sqrt{n}}$   
 (B)  $\frac{\text{CV of individual strand}}{2\sqrt{n^2}}$   
 (C)  $\frac{\text{CV of individual strand}}{\sqrt{n^2}}$   
 (D)   $\frac{\text{CV of individual strand}}{\sqrt{n}}$   
 (E) Answer not known

91. Identify the Dyeing machine/processes has very less water consumption.  
(A)  Pad-Batch process (B) Continuous Dyeing Machine  
(C) Jigger Dyeing (D) Beam Dyeing  
(E) Answer not known
92. Excessive noise normally distracts attention and obstructs the  
(A) Machine (B)  Smooth working  
(C) Material (D) Pollution  
(E) Answer not known
93. Textile industry contributes around \_\_\_\_\_ of share in country's export  
(A)  16% (B) 6%  
(C) 36% (D) 26%  
(E) Answer not known
94. TUFS stands for  
(A) Technological Upgradation Fund System  
(B)  Technological Upgradation Fund Schemes  
(C) Technological Upgradation Finance Schemes  
(D) Textile Upgradation Fund Schemes  
(E) Answer not known
95. As per factories Act, no child under \_\_\_\_\_ years of age shall be allowed to work in any factory.  
(A) 12 (B) 18  
(C) 16 (D)  14  
(E) Answer not known
96. Internal source of recruitment means  
(A)  From present working force (B) From professional contacts  
(C) From Educational Institution (D) From out of the Organisation  
(E) Answer not known

97. The cost of Remuneration such as wages, salaries, commissions, bonuses of the employees of a concern is called as
- (A) Material Cost (B)  Labour Cost  
(C) Expense (D) Prime Cost  
(E) Answer not known
98. "Bad debts" refers to
- (A) Non payment of Bank Interest  
(B) Non payment of principal Amount  
(C)  Amount not realised from debtors  
(D) Amount received for labours  
(E) Answer not known
99. \_\_\_\_\_ is a place, where men, materials, money, equipment, machinery etc., are brought together for manufacturing products.
- (A)  Plant (B) Concept  
(C) Factors (D) Raw material  
(E) Answer not known
100. Illumination level for Blow Room is
- (A)  55 – 65 lux (B) 70 – 80 lux  
(C) 100 – 115 lux (D) 150 – 170 lux  
(E) Answer not known
101. Total Quantity of light emitted by a light source is called as
- (A) Lumen (B)  Light Flux  
(C) Lux (D) Lighting efficiency  
(E) Answer not known

102. Identify the following texturized Fabric property is incorrect
- (A) Higher bulk (B) Poor dimensional stability  
(C) Greater water sorption (D) Increased warmth  
(E) Answer not known
103. In twist-de-twist texturisation method, the t.p.m. given to the up twister can be in the range of
- (A) 100 – 200 t.p.m (B) 500 – 800 t.p.m  
(C) 1000 – 1800 t.p.m (D) 2000 – 3000 t.p.m  
(E) Answer not known
104. Among the following spinning process which is recommended for heat-sensitive polymers.
- (A) Dry spinning (B) Wet spinning  
(C) Melt spinning (D) Wet and Melt spinning  
(E) Answer not known
105. The effective cross sectional diameter should be less than \_\_\_\_\_ to serve as a Fibre.
- (A) 14 Å (B) 15 Å  
(C) 16 Å (D) 25 Å  
(E) Answer not known
106. The raw material of polyester fibre is
- (A) Ethylene glycol and Dimethyl terephthalate  
(B) Caprolactom  
(C) Adipic acid and hexamethylene diamine  
(D) Diamine and a dicarboxylic acid  
(E) Answer not known



107. Important constituent in the chemical composition of raw wool is
- (A) Fibroin (B) Keratin  
(C) Sericin (D) Suint  
(E) Answer not known
108. The number of amino acids in wool fibre is
- (A) 5 - 10 (B) 15 - 20  
(C) 25 - 30 (D) 30 - 40  
(E) Answer not known
109. The gummy substance in the silk
- (A) Pectin (B) Resin  
(C) Fibroin (D) Sericin  
(E) Answer not known
110. Degree of order is equal to
- (A)  $[\rho - \rho_{am}] \div [\rho_{cr} - \rho_{am}]$  (B)  $[\rho_{am} - \rho] \div [\rho_{cr} - \rho_{am}]$   
(C)  $[\rho_{cr} - \rho_{am}] \div [\rho - \rho_{am}]$  (D)  $[\rho_{cr} - \rho_{am}] \div [\rho_{am} - \rho]$   
(E) Answer not known
111. Order the fibres based on their density
1. Cotton
  2. Silk
  3. Poly propylene
  4. Glass
- (A) 3 2 1 4 (B) 4 3 1 2  
(C) 4 3 2 1 (D) 3 1 2 4  
(E) Answer not known

112. The fibre not belongs to bast fibre is
- (A) Jute (B)  Sisal  
(C) Flax (D) Hemp  
(E) Answer not known
113. The lap fed to a 6 head comber is of 64 ktex and twin slivers of 3.4 ktex are required in the cans. The waste percentage is 15%. If the draft constant for this comber is 1696, what draft-change wheel is necessary?
- (A) 37.33 (B) 34.33  
(C)  35.33 (D) 33.55  
(E) Answer not known
114. The trash content of a cotton as fed to a beater is 3.6% and trash content in delivered cotton is 2.4%. What is the cleaning efficiency of the beater?
- (A) 3.33% (B)  33.3%  
(C) 50% (D) 0.333%  
(E) Answer not known
115. Definition of HOK in spinning is
- (A) Operative hours to produce 1000 kgs of yarn  
(B)  Operative hours to produce 100 kgs of yarn  
(C) Operative hours to produce 250 kgs of yarn  
(D) Operative hours to produce 500 kgs of yarn  
(E) Answer not known
116. The range of draft in rotor spinning machines
- (A) 50 to 70 (B)  100 to 200  
(C) 220 to 280 (D) 300 to 350  
(E) Answer not known

117. Which of the following traveller is suitable for spinning viscose rayon?
- (A)  Flat (B) Semi-round  
(C) Ultra semi-round (D) Round  
(E) Answer not known
118. Hook formation at card, is happening between
- (A) Licker - in and cylinder (B) Cylinder and under casing  
(C)  Cylinder and differ (D) Cylinder and flats  
(E) Answer not known
119. The modern comber is working at a speed of
- (A) 100 nips/min (B) 200 nips/min  
(C)  300 nips/min (D) 150 nips/min  
(E) Answer not known
120. The fibres lie between the back and front roller, without being held in any one of the nip is termed as
- (A) Back roller nip (B) Front roller nip  
(C) Ratch (D)  Floating fibres  
(E) Answer not known
121. During the yarn manufacturing process the attenuation of the sliver is called as
- (A) Opening (B)  Drafting  
(C) Twisting (D) Packaging  
(E) Answer not known

122. Calculate the count of the two fold cotton yarn composed of 72s and 56s singles.
- (A) 64.1 (B) 31.5  
 (C) 40.2 (D) 50.4  
 (E) Answer not known
123. Four 40s yarns are plied. What is the equivalent count of the plied yarn if twist effects are ignored?
- (A) 1/40 (B) 2/40  
 (C) 3/40 (D) 4/40  
 (E) Answer not known
124. Calculate the Average count of 80s, 50s, 40s and 20s cotton yarn.
- (A) 36.42s cotton (B) 37.44s cotton  
 (C) 38.22s cotton (D) 38.34s cotton  
 (E) Answer not known
125. Ne is equal to
- (A) 590.5/D (B) 5315/D  
 (C) 1654/D (D) 1938/D  
 (E) Answer not known
126. Resultant count of double yarn is \_\_\_\_\_. (where  $N_1$  and  $N_2$  are single yarn counts)
- (A)  $N_1 + N_2$  (B)  $\frac{1}{N_1} + \frac{1}{N_2}$   
 (C)  $\sqrt{N_1} + \sqrt{N_2}$  (D)  $\frac{1}{\sqrt{N_1}} + \frac{1}{\sqrt{N_2}}$   
 (E) Answer not known

127. Calculate the number of ends per inch in a reed of  $3/64$  stockport.
- (A) 64 (B) 78  
(C) 96 (D) 128  
(E) Answer not known
128. Calculate the number of spindles of a modern automatic pirn winder that would be required to wind 280 lbs. of  $20^S$  cotton yarn in 8 hours, if the production per spindle per hour is 1.4 lbs.
- (A) 23 spindles (B) 25 spindles  
(C) 26 spindles (D) 48 spindles  
(E) Answer not known
129. The full diameter of a pirn wound from cotton yarn is 32 mm, and the bare-pirn diameter at the nose of the chase is 14 mm. Determine the chase angle when the traverse is 34 mm
- (A)  $14^\circ 49'$  (B)  $15^\circ 39'$   
(C)  $14^\circ 59'$  (D)  $15^\circ 49'$   
(E) Answer not known
130. A cheese made on Schlafhorst high speed cheese winder was found to contain 43,680 yards of cotton. The weight of yarn was one pound. Calculate the count of yarn of the cheese.
- (A)  $40^S$  (B)  $32^S$   
(C)  $52^S$  (D)  $60^S$   
(E) Answer not known

131. The surface speed of the feed roller is 35 cm/min and the coiler-calender rollers have a surface speed of 41.3 m/min, then the calculated draft is
- (A) 118 (B) 120  
(C) 128 (D) 130  
(E) Answer not known
132. \_\_\_\_\_ Jacquard has two sets of knives which move up and down opposite to each other during a two pick cycle.
- (A) Single lift, single cylinder (B) Single lift, double cylinder  
(C) Double lift, single cylinder (D) Double lift, double cylinder  
(E) Answer not known
133. \_\_\_\_\_ cutting is used to cut small pieces with high accuracy, such as collars, pocket flaps and appliques.
- (A) Round knives (B) Straight knives  
(C) Die cutters (D) Band knives  
(E) Answer not known
134. Wadding can be called as
- (A) Lining (B) Interlining  
(C) Batting (D) Sequins  
(E) Answer not known
135. The feed system suitable for Elastic Waist band attachment is
- (A) Drop feed system (B) Differential bottom feed system  
(C) Unison feed system (D) Puller feed system  
(E) Answer not known

136. The total number of loops in a measured area of fabric is known as
- (A) Course (B) Wale  
(C) Course length (D)  Stitch density  
(E) Answer not known
137. The type of machine which knits body-width underwear garments requiring little or no making-up and with no uncomfortable side-seams is called
- (A) Flat bed knitting machine  
(B)  The seamless body wear garment machine  
(C) Circular garment length machine  
(D) Interlock knitting machine  
(E) Answer not known
138. In warp knitting, the second part of the loop structure is the length of yarn connecting the loop, which is called an
- (A) Over lap (B)  Under lap  
(C) Open lap (D) Closed lap  
(E) Answer not known
139. Knitting Machine having double ended needle and needle bed are set at  $180^\circ$  to each other is
- (A) Plain (B) Rib  
(C) Interlock (D)  Purl  
(E) Answer not known
140. The purpose of over lock stitch
- (A) To give good finish of fabric  
(B)  To prevent yarn fraying of material  
(C) To bind the edges of the fabric  
(D) To stitch the joining of fabric  
(E) Answer not known

141. The most commonly used needle on a Tricot warp knitting machine is
- (A) Latch needle (B)  Spring board needle  
(C) Compound needle (D) None of the above  
(E) Answer not known
142. In \_\_\_\_\_ wearing, weft transfer takes place at centre of the loom.
- (A)  Rapier (B) Projectile  
(C) Water jet (D) Multi phase  
(E) Answer not known
143. Smallest number of threads required to show all the interlacings in the pattern
- (A) Plain weave (B)  Weave repeat  
(C) Weave Index (D) Plain repeat  
(E) Answer not known
144. Energy required to pick the picking stick in wearing.
- (A)  $mv^2$  (B)   $\frac{1}{2} mv^2$   
(C)  $mv^2 P$  (D)  $mv$   
(E) Answer not known



145. Heald reversing is not required in

- (A) Negative shedding                      (B)  Positive shedding  
(C) Plain looms                              (D) Auto looms  
(E) Answer not known

146. In wearing, crankshaft is driven from the motor and makes

- (A)  One revolution per pick  
(B) Two revolution per pick  
(C) Half revolution per pick  
(D) No revolution per pick  
(E) Answer not known

147. Identify the type of shed produced by a vertical dobby on handlooms.

- (A) Centre Closed shed                      (B)  Bottom closed shed  
(C) Top closed shed                              (D) Open shed  
(E) Answer not known

148. In plain power loom the shuttle enters the warp in over pick loom at

- (A)  210°                                      (B) 180°  
(C) 240°                                      (D) 270°  
(E) Answer not known

149. Yarn clearers are used to remove
- (A) Foreign fibres in the yarn      (B)  Objectionable faults in yarn  
(C) Polypropylene fibres in the yarn      (D) Contamination in the yarn  
(E) Answer not known

150. Choose the incorrect statement
- (A) Knot is considered as "one fault replacing a worst fault".  
(B) Knot yarn strength is higher than parent yarn  
(C)  Spliced yarn strength is higher than parent yarn  
(D) Weaver's knot is appropriate for short-staple yarn.  
(E) Answer not known

151. In random winding, angle of winding (wind angle) is

If  $V_t$  – traverse speed (m/min)

$D$  – Diameter of the layer being wound (m)

$N$  – Bobbin rotational speed (rpm)

(A)  $\cos \theta = \frac{\pi DN}{V_t}$

(B)  $\cos \theta = \frac{V_t}{\pi DN}$

(C)   $\tan \theta = \frac{V_t}{\pi DN}$

(D)  $\tan \theta = \frac{\pi DN}{V_t}$

- (E) Answer not known

152. Precisim winding is preferred for

(A) Cotton spun yarn

(B) Jute yarn

(C)  Polyester filament

(D) Linen yarn

(E) Answer not known



158. The batt in non-woven fabric formation represents

- (A) Lay several webs on top of each other
- (B) Cross laying web
- (C) Parallel laying web
- (D) Air laying web
- (E) Answer not known

159. \_\_\_\_\_ fibres are suitable for Thermal bonding.

- (A) Polypropylene
- (B) Poly aramide
- (C) Poly peptides
- (D) Poly Urethenes
- (E) Answer not known

160. Match the following

Column A		Column B	
(a) Super absorbent polymer	1. Air bag		
(b) Elastane	2. fish net		
(c) Woven fabric	3. nonwoven		
(d) Warp knit	4. compression bandage		

- |     | (a)              | (b) | (c) | (d) |
|-----|------------------|-----|-----|-----|
| (A) | 3                | 1   | 4   | 2   |
| (B) | 3                | 4   | 1   | 2   |
| (C) | 4                | 1   | 3   | 2   |
| (D) | 4                | 3   | 2   | 1   |
| (E) | Answer not known |     |     |     |

161. Which of the following is not used in needle-punching machine

- (A) Crank
- (B) Stripper plate
- (C) Bed plate
- (D) Punch card
- (E) Answer not known

162. Hydroentangled non-woven fabrics commonly made from

- (A) Acrylic fibre
- (B) Polyester fibre
- (C) Nylon fibre
- (D) Viscose rayon
- (E) Answer not known

163. Boiling off is a process related to
- (A) Wool fibre (B)  Silk fibre  
(C) Cotton fibre (D) Polyester fibre  
(E) Answer not known
164. The term "End" or one "turn" is involved in
- (A) Beam dyeing machine (B) Winch dyeing machine  
(C)  Jigger dyeing machine (D) Cheese dyeing machine  
(E) Answer not known
165. The important property of cationic dyes is
- (A)  Brilliance (B) Dull  
(C) Semi dull (D) Dark  
(E) Answer not known
166. Choose the dye not suitable for cotton
- (A) Vat (B)  Disperse  
(C) Direct (D) Reactive  
(E) Answer not known
167. Select the most suitable dye for polyester
- (A) Direct Dye (B) Sulphur Dye  
(C) Basic Dye (D)  Disperse Dye  
(E) Answer not known

168. Fats and related substances can be removed from textile materials by
- (A) Singeing (B) Desizing  
(C)  Scouring (D) Bleaching  
(E) Answer not known
169. Enzyme used for Desizing of cotton material is
- (A) Protease (B) Lipase  
(C)  Amylase (D) Pectinase  
(E) Answer not known
170. The efficiency of Bleaching is assessed by
- (A) Sodium hypochlorite (B) pH value  
(C)  Copper Number (D) Calcium Number  
(E) Answer not known
171. \_\_\_\_\_ is a Hydrolytic desizing method.
- (A)  Acid steep (B) Bromite  
(C) Chlorine (D) Chlorite  
(E) Answer not known
172. Universal bleaching agent is
- (A)  Peroxide (B) Hypochlorite  
(C) Sodium hydrosulphite (D) Chloramine  
(E) Answer not known

173. Satin weave structure is used for

- (A)  ribbon cloth (B) towel cloth  
(C) bed covers (D) quilts fabric  
(E) Answer not known

174. The suitable move numbers for constructing 15 end satin is

- (A) 3, 7, 9 (B)  2, 4, 7  
(C) 2, 3, 4, 5 (D) 2, 3, 5  
(E) Answer not known

175. The wavy twill is also known as

- (A)  Pointed twill (B) Herringbone twill  
(C) Rearranged twill (D) Broken twill  
(E) Answer not known

176. \_\_\_\_\_ fabric structure has the feature of two parts filled with plain weave and remaining two parts filled with long float motif.

- (A) Crepe weave (B) Bedford cords  
(C)  Huck A Back (D) Twill weave  
(E) Answer not known

177. Satin is used with reference to a corresponding

- (A) Weft faced construction (B) Warp float  
(C) Floating threads (D)  Warp face structure  
(E) Answer not known

178. Identify the incorrect statement with respect to Warp backed fabrics?
- (A) Requires two warp beams and no drop box
  - (B)  Drafts are Simpler
  - (C) Greater strength warp way
  - (D) Low quality of yarn cannot be used in warp due to greater strain in weaving
  - (E) Answer not known
179. This is not the derivative of the twill weave
- (A) Herring bone twill
  - (B)  Warp Rib
  - (C) Pointed twill
  - (D) Drive
  - (E) Answer not known
180. The term crepe is applied to weaves that contain little or no twilled or other prominent effect, and which give a cloth the appearance of being covered by
- (A)  Minute spots or seeds
  - (B) Warp streaks
  - (C) Weft streaks
  - (D) Barred effect
  - (E) Answer not known
181. The type of draft suitable for weaving fabrics having heavy warp thread density is
- (A) Broken draft
  - (B) Pointed draft
  - (C)  Skip draft
  - (D) Straight draft
  - (E) Answer not known



182. Sample size for Pilling Test
- (A) 300 × 300 mm (B) 400 × 400 mm  
(C)  125 × 125 mm (D) 200 × 200 mm  
(E) Answer not known
183. Convert 200D into Ne system
- (A) 2658 (B) 22.22  
(C)  26.58 (D) 265.8  
(E) Answer not known
184. Conversion factor to convert denier to Tex is
- (A) 9.8 (B)  $\frac{1}{9}$   
(C)  9 (D)  $\frac{1}{9.8}$   
(E) Answer not known
185. The instrument used for measuring single yarn strength is
- (A) Stelometer (B) Take-up tester  
(C) Baer Sorter (D)  Instron tester  
(E) Answer not known
186. Correlogram techniques are used to determine the
- (A) Fineness (B)  Periodic Variation  
(C) Maturity (D) Uniformity  
(E) Answer not known

187. For American cotton staple length is given by

- (A)  $0.71 \times$  effective length
- (B)  $0.81 \times$  effective length
- (C)   $0.91 \times$  effective length
- (D)  $0.99 \times$  effective length
- (E) Answer not known

188. Uniformity ratio is equal to

- (A)   $[S_{50\%} \div S_{2.5\%}] \times 100$
- (B)  $[S_{2.5\%} \div S_{50\%}] \times 100$
- (C)  $[S_{50\%} \div S_{100\%}] \times 100$
- (D)  $[S_{50\%} \div S_{67.5\%}] \times 100$
- (E) Answer not known

189. The ratio of the actual vapour pressure to the saturated vapour pressure at the same temperature, expressed as a percentage is known as

- (A) Absolute Humidity
- (B) Moisture Content
- (C)  Relative Humidity
- (D) Moisture Regain
- (E) Answer not known

190. Which of the following is incorrectly matched?

- (A) Humidity – Wet-and-dry bulb hygrometer
- (B)  Humidity – Thermometer
- (C) Humidity – Hair hygrometer
- (D) Humidity – Electrolytic hygrometer
- (E) Answer not known

191. The square root of the mean of the squares of the deviations of the observation from their mean is called
- (A)  Standard deviation
  - (B)  Variance
  - (C)  Coefficient of variance
  - (D)  Percentage mean deviation
  - (E)  Answer not known
192. About \_\_\_\_\_ of energy is consumed in chemical wet processing.
- (A) 28%
  - (B) 58%
  - (C)  38%
  - (D) 48%
  - (E)  Answer not known
193. Non woven laminated with films are used in green houses covers to provide
- (A)  Protection to plants from frost
  - (B)  To save valuable fruits
  - (C)  Conductive weather condition for growth
  - (D)  Filtration ability
  - (E)  Answer not known
194. Enzyme for peroxide killer is
- (A)  Cellulose
  - (B)  Catalase
  - (C)  Amylase
  - (D)  Lipase
  - (E)  Answer not known

195. The seven Quality control tools were introduced by  
(A) Thomas and Wilson (B) Mikel Harry  
(C) Taguchii and David Hutton (D)  Deming and Juran  
(E) Answer not known
196. Pick the Total quality management systems from the following  
1.  $6\sigma$   
2. 5s  
3. ISO  
4. GOTs  
(A) 2, 3, 4 (B) 1, 3, 4  
(C)  1, 2, 3 (D) 1 and 3 only  
(E) Answer not known
197. 24" diameter and 42" height of a sliver can have \_\_\_\_\_ kgs of sliver content.  
(A)  36 (B) 16  
(C) 20 (D) 25  
(E) Answer not known
198. Which one is not belonging to material Handling in a Garment Industry?  
(A) Operators requirement for a stitching line  
(B) Cut pieces storage  
(C) Cloth Roller Transport System  
(D)  Fabric Inspection  
(E) Answer not known
199. Identify one of the following is not concerned with production planning and control  
(A) Capacity planning (B) Time of Delivery  
(C) Lead Time (D)  Capital Investment  
(E) Answer not known
200. Manufacturing cost is given by  
(A)  Raw material cost, direct labour cost and factory overhead  
(B) Raw material cost, Indirect labour cost and factory overhead  
(C) Raw material cost, direct labour cost and Administrative overhead  
(D) Raw material cost, direct labour cost and Indirect labour cost  
(E) Answer not known

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