1. Fastness rating in 8 different scale is used for

(A) Wash Fastness
(B) Dry Rubbing Fastness
(C) Wet Rubbing Fastness
(D) Light Fastness
(E) Answer not known

2. Choose the incorrect statement among the type

(i) Tear strength of fabric does not depend on the ease of grouping of yarns during tearing

(ii) A five end satin will have higher tearing strength than its equivalent 3/1 twill weave

(iii) A 2/1 twill weave will have higher tearing strength than its equivalent 3/1 twill weave

(A) Option (i) only
(B) Option (i) and (ii) only
(C) Option (i) and (iii) only
(D) Option (ii) only
(E) Answer not known

3. What is the purpose of the Martindale method of abrasion testing?

(A) To determine the colorfastness
(B) To determine the strength of the Textile material
(C) To simulate wear and tear in actual use
(D) To measure the amount of Lint produced by the fabric
(E) Answer not known

4. What is the formula for Drape co-efficient if mass of shaded area (A), total mass of paper ring (B)

(A) $\frac{A}{B} * 100\%$

(B) $B/A * 100\%$

(C) $\frac{(B - A)}{B} * 100\%$

(D) $(B - A)/A * 100\%$

(E) Answer not known

5. Which of the following formula is correct for finding flexural rigidity of a fabric?

Where,

W = Cloth weight in ounces per square yard

C = Bending length

(A) $G = 3.39\ WC^3\ mg / cm$

(B) $G = 1.39\ WC^2\ mg / cm$

(C) $G = 2.39\ W^2C\ mg / cm$

(D) $G = 4.39\ W^3C\ mg / cm$

(E) Answer not known

6. Which of the following formula is correct to find the drape coefficient (F)?

where,

A_D = Area of specimen

A_d = Area of supporting disc

A_S = Actual projected area of the specimen

(A) $F = (A_D - A_d)/(A_S - A_d)$

(B) $F = (A_D - A_d) \times (A_S - A_d)$

(C) $F = (A_S - A_d) \times (A_D - A_d)$

(D) $F = (A_S - A_d)/(A_D - A_d)$

(E) Answer not known

7. Yarn count is determined by

(A) Beesley balance

(B) Lea tester

(C) Stelo meter

(D) 'U' tester

(E) Answer not known

8. Choose true (or) false

Fifteen threads have been tested for single thread strength in gms and the values noted down in order of Increasing strength

(I) 174, 178, 180, 181, 184, 186, 186, 187, 189, 191, 193, 195, 196, 196. The median in the 8^{th} value, 187 gm should there

(II) Be an even number of values, then the mean of the two middle value is taken 147, 149, 151, 151, 152, 153, 153, 154, 155, 156 the median is the sum of the 5^{th} and 6^{th} value divided by 2, i.e $(152 + 153) \div 2 = 152.5$ gm.

(A) (I) and (II) true
(B) (I) true (II) false
(C) (I) false (II) false
(D) (I) false (II) true
(E) Answer not known

9. On uster classimat, as compared to the yarn fault D4, the fault B3 is

(A) Thinner and Longer
(B) Thicker and Longer
(C) Thinner and Shorter
(D) Thicker and Shorter
(E) Answer not known

10. The unit of measure of Tenacity value of textile material is

(A) gt/denier
(B) N/m^2
(C) Kg/m
(D) Km
(E) Answer not known

11. What is matured fibre?

(A) Fibre cellwall thin and luman thick
(B) Fibre cellwall thick and luman thick
(C) Fibre cellwall thick and luman thin
(D) Fibre cellwall and luman not presented
(E) Answer not known

12. Fibre fineness is measured by

(A) Sheffield micronoise tester
(B) Beesley balance
(C) Lea tester
(D) Martindale abrasion tester
(E) Answer not known

13. The density of a nylon is

(A) 1.17
(B) 1.14
(C) 1.34
(D) 1.28
(E) Answer not known

14. Assertion [A] : For given weight, mature fibre will contain fewer fibre than immature fiber and lead to higher air flow

Reason [R] : Cell wall thickness of mature fibre is greater than that of immature fibre

(A) [A] is true but [R] is false

(B) Both [A] and [R] are true; and [R] is the correct explanation of [A]

(C) [A] is false, [R] is true

(D) Both [A] and [R] are true; But [R] is not the correct explanation of [A]

(E) Answer not known

15. Shirley fineness tester working under the principle of

(A) Gravimetric

(B) Image processing

(C) Air flow

(D) Water flow

(E) Answer not known

16. Tenacity expressed in ———————— units.

(A) g/denier (or) g/Tex

(B) kgs

(C) Kg/denier (or) kg/Tex

(D) Pounds/Tex

(E) Answer not known

17. Relative humidity is

(A) The ratio of the actual vapor pressure to the saturated vapor pressure at the same temperature

(B) The weight of water present in a unit volume of moist air

(C) Room Temperature

(D) Weight of water vapour in unit volume of air

(E) Answer not known

18. Core sampling is a technique used to draw a sample of

(A) Raw wool (B) Raw cotton

(C) Raw silk (D) Raw hemp

(E) Answer not known

19. Calculate the mode value of the given samples.

38, 40, 36, 41, 37, 40, 42, 40, 39, 41

(A) 40 (B) 36

(C) 38 (D) 42

(E) Answer not known

20. ———————— is the average length of the fibre in the sample. This is obtained by dividing the base line readings by the base line length

(A) Mean length (B) Effective length

(C) Percentage of short fibre (D) Modal length

(E) Answer not known

21. Which of the following is incorrectly paired?

(A) Standard deviation = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$

(B) Coefficient of variation = $\frac{\text{Standard Deviation}}{\text{Mean}} \times 100$

(C) Percentage mean deviation = $\frac{\text{Mean deviation}}{\text{Mean}}$

(D) Median = It is the middle value of a series of values arranged in order of magnitude

(E) Answer not known

22. Tuck loop is formed by

(A) The length of yarn received by a needle and not pulled

(B) A length of yarn not received by a needle

(C) The yarn connects two adjacent needle lamps

(D) The yarn connects the coarse

(E) Answer not known

23. Identify the term not related to warp knitting

(A) Over lap (B) Under lap

(C) Back loop (D) Open lap

(E) Answer not known

24. ———————— fabric are very absorbent, light in weight and wrinkle resistant. It is usually unnecessary to iron them after laundering and packing

(A) Woven fabric
(B) Knitted fabric
(C) Braided fabric
(D) Non-woven fabric
(E) Answer not known

25. Knitting is

(A) Interlacing of yarns
(B) Interlooping of yarns
(C) Winding of yarns
(D) Warping of yarns
(E) Answer not known

26. Which is the correct statement mentioning weft knitting?

(A) Loop formation takes place coarse wise in vertical direction
(B) Loop formation takes place wales wise in horizontal direction
(C) Loop formation takes place coarse wise in horizontal direction
(D) Loop formation takes place wales wise in vertical direction
(E) Answer not known

27. Interlock is

(A) Flat knit structure
(B) Warp knit structure
(C) Single Jersey weft knit structure
(D) Double Jersey weft knit structure
(E) Answer not known

28. Knitted fabric which has a smooth surface on the face of the fabric and loops on the back is

(A) Single jersey
(B) Ixi Rib
(C) Purl
(D) Interlock
(E) Answer not known

29. Knit fabric having face loop and back loop alternatives in wale direction is

(A) Single Jersey
(B) Rib
(C) Interlock
(D) Purl
(E) Answer not known

30. Fabric structure related to warp knitting is

(A) Purl
(B) Reverse locknit
(C) Double knit
(D) Pique
(E) Answer not known

31. Properties of rib fabric are

(A) Irreversible structure from feel and appearance
(B) Reversible structure, heavier and thicker
(C) Less extensible structure with ladder resistant
(D) Reversible structure with soft hand
(E) Answer not known

32. Darts in garment provide

(A) Free movement
(B) Shape to a garment
(C) Joining the parts of the garments
(D) None
(E) Answer not known

33. Match the following :

Stitch class	Stitch name
(a) Class 100	1. Lock stitch
(b) Class 300	2. Chain stitch
(c) Class 400	3. Over edge chain stitch
(d) Class 500	4. Multi thread chain stitch

	(a)	(b)	(c)	(d)
(A)	3	4	1	2
(B)	3	1	4	2
(C)	2	1	4	3
(D)	2	4	1	3

(E) Answer not known

34. Which is not relevant to market planning?

(A) Placement of pattern pieces
(B) To meet technical requirement
(C) Spreading of fabric
(D) Material economy
(E) Answer not known

35. What type of knife is used in computer controlled cutting machine?

(A) Laser
(B) Plasma
(C) Straight knife
(D) Round knife
(E) Answer not known

36. Superimposed seam is also known as

(A) Lapped seam
(B) French seam
(C) Bound seam
(D) Flat seam
(E) Answer not known

37. Type of feed system for slippery and tacky material is

(A) Puller feed
(B) Compound feed
(C) Unison feed
(D) Drop feed
(E) Answer not known

38. Technically suitable thread for machine embroidery is

(A) Spun polyester
(B) Mercerised cotton
(C) Filament Rayon
(D) Continuous filament trilobal polyester
(E) Answer not known

39. Main reason for slip stitch is

(A) Bent needle
(B) Incorrect needle
(C) Incorrect thread
(D) Failure of looper to pickup needle thread
(E) Answer not known

40. Sandwich fusing is effectively carried out on ———————— machine.

(A) Flat bed-vertical action
(B) Horizontal continuous press
(C) Continuous press
(D) Flat bed-scissor action
(E) Answer not known

41. What is grain line?

(A) Direction of yarn
(B) Pattern align with lengthwise grain
(C) Pattern align with crosswise grain
(D) Bowing
(E) Answer not known

42. How many shuttles are used to weave solid border silk saree?

(A) 2 (B) 4
(C) 3 (D) 1
(E) Answer not known

43. Match the following :

P.	Brocade	(i)	Silk fabric with weft sateen figure on warp satin
Q.	Damask	(ii)	Silk fabric woven in plain construction
R.	Chiffon	(iii)	Heavy silk fabric with figured ornaments
S.	Taffeta	(iv)	Silk fabric with very soft and filmy texture

	(P)	(Q)	(R)	(S)
(A)	(ii)	(iv)	(iii)	(i)
(B)	(iii)	(i)	(iv)	(ii)
(C)	(iv)	(iii)	(ii)	(i)
(D)	(i)	(ii)	(iii)	(iv)

(E) Answer not known

44. Double cloth consists of

(A) 3 series of warp and weft

(B) 1 series of warp and 2 series of weft

(C) 2 series of warp and weft

(D) 2 series of warp and 1 series of weft

(E) Answer not known

45. Number of warp and weft intersections are move in

(A) Twill weave

(B) Satin weave

(C) Plain weave

(D) Sateen weave

(E) Answer not known

46. Pick the correct statement given below :

(A) Two warp beam is needed to weave weft backed fabric

(B) Drop box is needed to weave warp backed fabric

(C) Warp backed fabric is softer than weft backed fabric

(D) Weft backed fabric is softer than warp backed fabric

(E) Answer not known

47. A cloth made of jute and woven in plain weave used for packaging purpose is

(A) Leno cloth

(B) Hessian cloth

(C) Drill cloth

(D) Pile cloth

(E) Answer not known

48. Which is the chemical used for producing discharge printing?

(A) Zinc sulphoxylate formaldehyde

(B) Urea formaldehyde

(C) Sodium hexa-meta phosphate

(D) Metaphosphoric acid

(E) Answer not known

49. In basic construction, the ———————— weave is similar to the twill weave but generally uses from five to as many as twelve harness producing a five to twelve shaft construction.

(A) Plain

(B) Honey comb

(C) Crepe

(D) Satin

(E) Answer not known

50. ————————, weave is the most durable and strong weave.

(A) Basket weave
(B) Satin weave
(C) Twill weave
(D) Plain weave
(E) Answer not known

51. The fabric, ends are exclusively inserted and used to create a decorative pattern on top is called

(A) Extra warp
(B) Extra weft
(C) Triple cloth
(D) Bed ford cord
(E) Answer not known

52. 3 pick Terry belongs to

(A) Warp pile structure
(B) Weft pile structure
(C) Velveteen structure
(D) Satin structure
(E) Answer not known

53. Choose correct matching

	Weave		Appearance
(a)	Plain weave	1.	Left (or) right hand diagonal variations provided
(b)	Twill weave	2.	Compact, smooth, interrupted diagonal
(c)	Satin weave	3.	Three dimensional effect formed by yarn entering perpendicular into the ground weave
(d)	Pile weave	4.	Flat no distinguish design

	(a)	(b)	(c)	(d)
(A)	4	1	2	3
(B)	4	2	3	1
(C)	4	3	2	1
(D)	3	4	2	1

(E) Answer not known

54. Corded velveteens is a

(A) Warp pile fabric
(B) Weft pile fabric
(C) Backed cloth
(D) Triple cloth
(E) Answer not known

55. In weave and colour combination, the "Hound's – tooth" effect is obtained by using

(A) Order of colouring 2 dark, 2 light in warp way and the weave pattern is 4-and-4 twill weave

(B) Order of colouring 4 dark, 4 light in warp light in weft and 2-and-2 twill weave

(C) Order of colouring 2 dark, 2 light in warp and weft and 2-and-4 twill weave

(D) Order of colouring 4 dark, 4 light in warp and weft and 2-and-2 twill weave

(E) Answer not known

56. The surface speed of feed roller is 35 cm/min and the surface speed of coiler calendar roller is 41.3 mtrs/min. Calculate the draft :

(A) 125 (B) 128

(C) 118 (D) 108

(E) Answer not known

57. The draft constant of a card is 1660. Calculate the number of teeth on draft wheel required to give total draft of 96.

(A) 17.3 (B) 16.3

(C) 17.8 (D) 19.3

(E) Answer not known

58. The surface speed of the coiler calendar roller in carding is 39.1 m/min. If the linear density of sliver is 4.0 k. tex (4 kg/km). Find out the production per hour at 80% efficiency.

(A) 8.5 kg/h
(B) 7.5 kg/h
(C) 7.5 kg/shift
(D) 8.5 kg/shift
(E) Answer not known

59. 100 kgs of cotton was fed into blowroom and carding machine and waste % removed are 4% and 5% respectively. The weight of cotton at the delivery of carding machine is

(A) 91.0 kg
(B) 91.2 kg
(C) 91.4 kg
(D) 91.6 kg
(E) Answer not known

60. An Airjet loom is running 750 picks/min and producing bandage cloth with 27 picks/inch. Calculate the length of cloth produced in the loom at 90% efficiency/per shift of 8 hours.

(A) 333.33 metre
(B) 333.33 yard
(C) 363.33 metre
(D) 363.33 yard
(E) Answer not known

61. Calculate the weight of warp in kg.

Ends - 2160

Tex - 30

Warp length - 55 m

(A) 4.13 kg (B) 5.13 kg

(C) 35.6 kg (D) 3.56 kg

(E) Answer not known

62. Which count system is represented by the number of 560 yard weighing one pound?

(A) Worsted (English) (B) Woolen

(C) Metric (D) Denier

(E) Answer not known

63. English count system of yarn numbering is

(A) Indirect count system (B) Direct count system

(C) Tex (D) Denier

(E) Answer not known

64. French and metric system of finding the yarn count is

(A) Tex (B) Denier

(C) Indirect count system (D) Direct count system

(E) Answer not known

65. Calculate the count of yarn wound on Barber Colman super speed automatic spooler, type D. The length of yarn wound is 600 km. And its weight is 3 kg.

(A) 5 Tex
(B) 7 Tex
(C) 6 Tex
(D) 4 Tex
(E) Answer not known

66. Length of 1.5 kg of 30 tex cotton yarn is

(A) 50 km
(B) 45 km
(C) 35.4 km
(D) 37.5 km
(E) Answer not known

67. Conversion formula for cotton count to tex is

(A) Tex = 590.5 × Cotton count
(B) Tex = 590.5 ÷ Cotton count
(C) Tex = Cotton count ÷ 590.5
(D) Tex = 840 × Cotton count
(E) Answer not known

68. Tex and Denier system of measuring the yarn count is called

(A) Indirect count system
(B) Direct count system
(C) French
(D) Metric
(E) Answer not known

69. Cotton count (Ne) is equal to

(A) 0.59 × Nm
(B) 0.5 × Nm
(C) 0.95 × Nm
(D) 0.9 × Nm
(E) Answer not known

70. A 150 Denier continuous filament yarn is used as weft in a fabric. Calculate the linear density of the filament yarn in tex system.

(A) 16.66 Tex
(B) 16.16 Tex
(C) 15.76 Tex
(D) 17.16 Tex
(E) Answer not known

71. A Lea (120 yards) of cotton yarn weighs 25 grains. Its count in cotton system is

(A) 60^s
(B) 50^s
(C) 45^s
(D) 40^s
(E) Answer not known

72. Convert linear density in tex is 32^s cotton yarn.

(A) 20.46 Tex
(B) 17.86 Tex
(C) 19.46 Tex
(D) 18.46 Tex
(E) Answer not known

73. 20 Ne yarn is doubled with 30 Ne yarn. The resultant yarn count will be

(A) 10 Ne
(B) 12 Ne
(C) 25 Ne
(D) 50 Ne
(E) Answer not known

74. Two polyester filament yarn of 40 and 76 denier are plied together. The resultant count is

(A) 58 denier
(B) 116 denier
(C) 36 denier
(D) 26 denier
(E) Answer not known

75. A cotton fabric is woven 3 threads in a dent, 42 inches wide and 2520 ends. What will be the reed count in stock port system?

(A) 14^s
(B) 20^s
(C) 30^s
(D) 40^s
(E) Answer not known

76. Reed Count in metric system.

(A) Number of dents per 10 cm
(B) Number of dents per 2 inches
(C) Number of dents per one inch
(D) Number of dents per 50 cm
(E) Answer not known

77. Calculate the number of Ends per inch in a reed of 3/64 stock port.

(A) 96
(B) 92
(C) 86
(D) 102
(E) Answer not known

78. Calculate the cloth cover factor for the cloth having 100's warp, 50's weft, with 206 ends per inch and 70 picks per inch.

(A) 23.18
(B) 37.78
(C) 43.58
(D) 46.36
(E) Answer not known

79. Ginning is for

(A) Seperation of cotton fibre from seed
(B) Opening
(C) Cleaning
(D) Brushing
(E) Answer not known

80. The objective of mixing/blending process is

(A) To achieve a basic product uniformity
(B) To achieve a clean product
(C) To achieve a high production
(D) To achieve a waste % reduction
(E) Answer not known

81. The improved beater is

(A) Porcupine opener
(B) Three bladed beater
(C) Krishner beater
(D) Step cleaner
(E) Answer not known

82. Arrange the following process in sequential order in respect of high performance blow room process

1. Automatic bale opener
2. Pre-cleaner for gentle opening and removing coarse trash
3. Blender for homogeneous blending
4. Fine cleaner for removing finest trash with intensive opening

(A) 1, 2, 3, 4 (B) 2, 1, 3, 4
(C) 1, 4, 2, 3 (D) 3, 1, 4, 2
(E) Answer not known

83. The correct sequence of blow room process are

1. Lap formation
2. Mixing
3. Opening
4. Cleaning

(A) 1, 2, 3, 4 (B) 3, 4, 2, 1
(C) 2, 3, 4, 1 (D) 4, 3, 2, 1
(E) Answer not known

84. Function of TFO twister

(A) Doubling and twisting (B) Doubling
(C) Winding (D) Twisting
(E) Answer not known

85. The most reliable measurement of fractionating efficiency of combers is based on

(A) Effective length
(B) Short fibre content
(C) Mean length improvement
(D) Noil percentage
(E) Answer not known

86. The trash content of the cotton fed to a blow room beater is 3.6%. The waste extracted is 1.5% of which 80% is trash. Calculate the cleaning efficiency of the beater.

(A) 32.3%
(B) 34.3%
(C) 31.3%
(D) 33.3%
(E) Answer not known

87. Gauge used to check the carding machine parts setting is

(A) TARP gauge
(B) Feeler gauge
(C) ATIRA pressure gauge
(D) Nilo meter
(E) Answer not known

88. In modern short-staple spinning mills, a flexible card clothing is available on the

(A) Feed roller
(B) Licker-in
(C) Carding
(D) Flats
(E) Answer not known

89. Objects of Ring spinning

(A) Drawing and blending

(B) Drawing, inserting twisting and winding

(C) Removal of short films

(D) Conversion of sliver to roving

(E) Answer not known

90. The diameter of doffer roller is

(A) $9''\phi$ (B) $27''\phi$

(C) $50''\phi$ (D) $32''\phi$

(E) Answer not known

91. Which of the following statement(s) are true in modern comber.

(i) Nipper is used to grip lap sheet and have to & fro movement.

(ii) Unicomb have 4 zones of wire density and have variable surface speed

(iii) Topcomb have uniform wire density and have up/down movement.

(A) (i) only (B) (i) and (iii) only

(C) (i) and (ii) only (D) (ii) and (iii) only

(E) Answer not known

92. Novelty and specialty yarns are mostly spun from

(A) Air vortex spinning (B) Air jet spinning

(C) Friction spinning (D) Rotor spinning

(E) Answer not known

93. Raw material for OE spinning

(A) Combed sliver
(B) Carded sliver
(C) Draw frame sliver
(D) Roving
(E) Answer not known

94. Moire effect is caused in

(A) Ring spinning
(B) Rotor spinning
(C) Air vortex spinning
(D) Air jet spinning
(E) Answer not known

95. In an air vortex spinning the rotor is eliminated and replaced by

(A) Tangential air inlet
(B) Co-axial air inlet
(C) Axial air inlet
(D) Air stream
(E) Answer not known

96. HOK for semi production card for 40^s Count

(A) 2.5
(B) 1.5
(C) 0.8
(D) 1.0
(E) Answer not known

97. Assertion [A] : Micronaire value does not always represent the actual fineness of the fibres.

Reason [R] : Owing to the use of air through flow method, a low average micronaire valve is obtained where there is a high proportion of immature fibres.

(A) [A] is true but [R] is false

(B) Both [A] and [R] are true, and [R] is the correct explanation of [A].

(C) Both [A] and [R] are true, but [R] is not the correct explanation of [A]

(D) [A] is false but [R] is true

(E) Answer not known

98. Match the following

	Setting between		Distance in (1/1000 inch)
(a)	Feed roller to Licker-in	1.	4 to 5
(b)	Licker-in to cylinder	2.	8 to 10
(c)	Cylinder to flats	3.	10 to 12
(d)	Cylinder to differ	4.	22

	(a)	(b)	(c)	(d)
(A)	4	2	3	1
(B)	1	2	3	4
(C)	2	1	3	4
(D)	4	3	1	2

(E) Answer not known

99. Choose the correct matches among the following activities of SQC department which need to be tied up with maintenance activities of carding department

(A) Full lap waste study – Before half setting

(B) NEP level in card sliver – Before and after grinding

(C) Fibre damage in the licker in region – Before checking and setting the Premafil units

(D) Microdust in sliver – Before full setting of the card.

(E) Answer not known

100. Which of the following statement is false about the aims of an effective maintenance programme?

(A) To maintain equipment at the maximum operating speed and production efficiency.

(B) To ensure the best possible level to quality of the product

(C) To maximise the idle time resulting from machinery breakdown.

(D) To reduce to a minimum the cost of maintenance consistent with the above objectives

(E) Answer not known

101. Match the following type :

Carding parts		Wire angle (°)
(a) Licker-in	1.	+12° to + 27°
(b) Cylinder	2.	+20° to + 40°
(c) Doffer	3.	+5° to –10°

	(a)	(b)	(c)
(A)	3	1	2
(B)	1	2	3
(C)	1	3	2
(D)	2	1	3

(E) Answer not known

102. Size of card cylinder is 1275 mm dia × 1000 mm width and mounted with metallic wire of 0.5 mm thick. Length of wire (in km) required for complete mounting is

(A) 6.2 km (B) 7.15 km

(C) 8 km (D) 10.2 km

(E) Answer not known

103. UKG for 40^{S} carded yarn count is

(A) 2.0 (B) 4.0

(C) 6.0 (D) 8.0

(E) Answer not known

104. Method not related to removal of dye from dye house effluent is

(A) Activated charcoal adsorption technique
(B) Ion exchange technique
(C) Zeolite processing technique
(D) Reverse osmosis technique
(E) Answer not known

105. Choose right matches among types :

1. AEPC – Apparel export promotion council
2. WSC – Weaver's society council
3. TUFS – Technology Upgradation Foreign Scheme
4. HEPC – Handloom export promotion council

(A) 1 and 2 are correct
(B) 2 and 4 are correct
(C) 3 and 4 are correct
(D) 1 and 4 are correct
(E) Answer not known

106. The important characteristics of an organisation. Find out the unmatched one

(A) Communication
(B) Rules and regulation
(C) Co-operative effort
(D) Carrier planning
(E) Answer not known

107. ERP in management

(A) Enterprise Resource Planning
(B) Entrepreneur Resource Programme
(C) Executive Report Planning
(D) Execution of Required Process
(E) Answer not known

108. TQM refers to

(A) Inventory Management
(B) Total Production Management
(C) Stores Management
(D) Total Quality Management
(E) Answer not known

109. In TQM, suppliers are treated as

(A) Partners
(B) Managers
(C) Employees
(D) Enemies
(E) Answer not known

110. The following type of layout is preferred for low volume production of non standard product

(A) Product Layout
(B) Process Layout
(C) Fixed Position Layout
(D) Combination Layout
(E) Answer not known

111. Match the following :

	Device		Purpose
(a)	Overhead crane	1.	Horizontal Transportation
(b)	Pumps	2.	Lifting and Lowering
(c)	Chutes	3.	Lifting and Transportation

	(a)	(b)	(c)
(A)	2	1	3
(B)	1	2	3
(C)	3	2	1
(D)	2	3	1

(E) Answer not known

112. In Nonwovens, name of the chemical used in chemical bonding

(A) NaOH (B) Na_2CO_3

(C) NaCl (D) Latex

(E) Answer not known

113. In needle punching of non woven, the needle gauge (SWG), for the fibre linear density of 6 to 10 denier is

(A) 30 (B) 35

(C) 38 (D) 42

(E) Answer not known

114. Which of the following formula is correct in finding the theoritical number of fibres that may be collected in the barbs of a needle in a needle punching of nonwoven?

where,

bd is the barb depth

df is the fibre diameter

nb is the number of acting barbs on the needle

(A) $\frac{2bd}{df} \cdot nb$ (B) $\frac{df}{2bd} \cdot nb$

(C) $\frac{2bd}{nb} \cdot df$ (D) $\frac{2bd}{df}$

(E) Answer not known

115. Match the nonwoven types listed in List I with the corresponding components in List II :

	List I		List II
(P)	Stitch bonding	1.	Extruder
(Q)	Needle punching	2.	Engraved roller
(R)	Spun Bonding	3.	Barbed Needle
(S)	Thermal bonding	4.	Compound Needle

	(P)	(Q)	(R)	(S)
(A)	2	4	1	3
(B)	4	3	1	2
(C)	3	4	2	1
(D)	4	1	2	3

(E) Answer not known

116. ———————— are flexible material which have been formed directly from fibres and rely on thermal (or) chemical treatments for their construction

(A) Needle felt fabrics
(B) Wool felt fabrics
(C) Felt fabrics
(D) Bonded fabrics
(E) Answer not known

117. Non wovens are

(A) Bonded fabrics
(B) Interlacing
(C) Interlooping
(D) Knitting
(E) Answer not known

118. Which of the following types of bonding is followed by needle punching?

(A) Mechanical bonding
(B) Thermal bonding
(C) Chemical bonding
(D) Spun bonding
(E) Answer not known

119. In medical textiles, which fibre is used to make Artificial lever.

(A) Hollow viscose
(B) Silicone
(C) Polyester
(D) Polypropylene
(E) Answer not known

120. Choose the correct statement from the following statements.

(i) Geo textiles can fail in their filtration function by virtue of organisms multiplying and blocking the pores.

(ii) Geo textiles can fail in their filtration function by chemical precipitation from saturated mineral waters blocking the pores.

(A) (i) only
(B) (i) and (ii) only
(C) (ii) only
(D) both (i) and (ii) are incorrect
(E) Answer not known

121. Match the following type match the products listed in I with their Property in List II

List I	List II
(a) Geotex fabric	1. Higher packageability and strength
(b) Ballistic fabric	2. Higher filtration capacity
(c) Air bag fabric	3. Higher endurance capacity
(d) Face mask fabric	4. Higher energy absorption

	(a)	(b)	(c)	(d)
(A)	1	4	3	2
(B)	4	3	2	1
(C)	2	4	3	1
(D)	3	4	1	2

(E) Answer not known

122. Match the following type technical end use products and grouped them into the following application area

	Technical endure		Applications Area
(a)	Agrotech	1.	Civil engineering
(b)	Hometech	2.	Agriculture
(c)	Medtech	3.	Floor covering
(d)	Geotech	4.	Hygiene textile

	(a)	(b)	(c)	(d)
(A)	2	3	4	1
(B)	1	2	3	4
(C)	3	2	1	4
(D)	4	3	2	1

(E) Answer not known

123. Which of the synthetic fibre is used for making tyre-cords?

(A) Acrylic
(B) Polyester
(C) Nylon 6
(D) Perlon
(E) Answer not known

124. ———————— is an act to provide for reservation of certain articles for exclusive production by handloom.

(A) The handloom enforcement act, 1985
(B) The handloom (Reservation of articles for production) act, 1985
(C) The powerloom (Protection of articles for production) act, 1965
(D) The handloom (Enforcement of articles for production) act, 1965
(E) Answer not known

125. In Pochampally dress material IKat technique followed Ikat refers to

(A) Weaving method employs resist dyeing technique to yarns
(B) Direct dyeing method
(C) Dyeing of fabric
(D) Printing with Rotary
(E) Answer not known

126. Which place is famous for Sungudi sarees in Tamilnadu?

(A) Karur
(B) Salem
(C) Madurai
(D) Kanchipuram
(E) Answer not known

127. Choose the incorrect statements, with respect to Kancheepuram silk saree wearing

(1) Contrast border with Korvai technique
(2) Contrast Pallu with Petni technique
(3) Satin weave used in the base fabric

(A) Option (1) only
(B) Option (1) and (2) only
(C) Option (3) only
(D) Option (2) and (3) only
(E) Answer not known

128. Assertion [A] : Any factor which reduces the weight of yarn without altering the length must decrease the count (Ne).

Reason [R] : The removal of impurities is accompanied by a corresponding loss of weight of yarn.

(A) [A] is true but [R] is false

(B) Both [A] and [R] are true and [R] is the correct explanation of [A]

(C) [A] is false, [R] is true

(D) Both [A] and [R] are true, but [R] is not the correct explanation of [A]

(E) Answer not known

129. To prevent the mildew formation during sizing process which of the following chemical to be added

(A) Hexachloride

(B) Potassium Iodate

(C) Halogenated phenols

(D) Hydrofluoric acid

(E) Answer not known

130. Which of the following enzyme may be used in desizing of cotton material

(A) Bacterial amylase

(B) Lactase

(C) Lipase

(D) Sucrase

(E) Answer not known

131. The most commonly used stabilizer in Hydrogen peroxide bleaching

(A) Silver nitrate
(B) Sodium silicate
(C) Sodium nitrate
(D) Sodium Iodide
(E) Answer not known

132. In scouring of cotton fabric proteins are broken up into

(A) Insoluble substances
(B) Glycoside
(C) Sodium salt of simple amino acid
(D) Soap
(E) Answer not known

133. Name of the chemical used for mercerization

(A) NaOH
(B) H_2O_2
(C) NaCl
(D) H_2SO_4
(E) Answer not known

134. The tensionless treatment of cotton fabrics with strong caustic soda improves dye uptake and tensile strength this statement relates to

(A) Bleaching
(B) Enzymatic desizing
(C) Mercerisation
(D) Resin finishing
(E) Answer not known

135. Usually the hot mercerisation temperature range is

(A) 40 – 50°C
(B) 60° – 80°C
(C) 30 – 40°C
(D) 80 – 90°C
(E) Answer not known

136. In well mercerized cloth (or) yarn the barium activity number between

(A) 80 to 100
(B) 160 to 180
(C) 130 to 160
(D) Below 100
(E) Answer not known

137. Match the following :

(a)	Reducing agent	1.	EDTA
(b)	Water softening agent	2.	Sodium salts of naphthalene sulphonic acid
(c)	Exhausting agent	3.	Sodium bisulphate
(d)	Dispersing agent	4.	Glauber's salt

	(a)	(b)	(c)	(d)
(A)	3	4	1	2
(B)	2	3	4	1
(C)	3	1	4	2
(D)	4	3	1	2

(E) Answer not known

138. Match correctly the type of vat dye with its vatting temperature :

(a)	I_k	(1)	>60°C
(b)	I_w	(2)	35 to 50°C
(c)	I_N	(3)	45 to 50°C
(d)	I_N special	(4)	55 to 60°C

	(a)	(b)	(c)	(d)
(A)	1	2	3	4
(B)	3	1	4	2
(C)	4	1	2	3
(D)	1	3	4	2

(E) Answer not known

139. Arrange the following reactive group in the reactive dye in ascending order of fixation temperature in degree celsius

(a) Vinyle sulphone

(b) Dichlorotriazine

(c) Monochlorotriazine

(A) b<a<c (B) b<c<a

(C) c<a<b (D) a<b<c

(E) Answer not known

140. Which reactive system is called by the name Remazol?

(A) Anthara quinone (B) Monochlorotriazine

(C) Dichlorotriazine (D) Vinyl Sulphone

(E) Answer not known

141. Stock dyeing in given in the stage of

(A) Fibre stage
(B) Sliver stage
(C) Yarn stage
(D) Fabric stage
(E) Answer not known

142. The Suitable dyeing for Hosiery Fabrics

(A) Beam dyeing
(B) Winch dyeing
(C) Jigger dyeing
(D) Padding mangles
(E) Answer not known

143. Batch dyeing is also referred as

(A) Solvent dyeing
(B) Space dyeing
(C) Exhaust dyeing
(D) Gel dyeing
(E) Answer not known

144. Rongalite C is mainly used in ———————— printing.

(A) Discharge style
(B) Direct style
(C) Transfer printing
(D) Resist style
(E) Answer not known

145. Binder and fixer are used in ———————— printing.

(A) Discharge
(B) Resist
(C) Transfer
(D) Pigment
(E) Answer not known

146. Which one of the following reducing compound is not stable in Neutral (or) acid solution?

(A) Sodium dihydrogen phosphate
(B) Sodium diacetate
(C) Sodium dithionite
(D) Sodium bisulfate
(E) Answer not known

147. Why antimicrobial and antifungal finishes are given to the textile?

(A) Kill the virus in fabric
(B) Formation of coating on surface
(C) Kill the micro organism
(D) Protect damages of the cloth
(E) Answer not known

148. Which of the following combination is used for flame retardant?

(A) Magnesium Phosphate
(B) Antimony (III) Oxide and Halogen
(C) Nitrogen Compounds
(D) Calcium Phosphate
(E) Answer not known

149. Treatment of fabric with DMDHEU is carried out to impart ———— finish.

(A) Anti-Shrink
(B) Antimicrobial
(C) Water Repellent
(D) Flame Retardent
(E) Answer not known

150. Garment 'Permanent Press' treatment will affect ———— of fabric.

(A) Tear strength
(B) Colour fastness
(C) Lusture
(D) Dimensional stability
(E) Answer not known

151. Loosely wound / lower tension wound weft packages causes

(A) Starting mark
(B) Cracks
(C) Floats
(D) Slough off
(E) Answer not known

152. In projectile 100 m, the angular twisting of torsion bar at commencement of picking is

(A) 20° – 22°
(B) 24° – 26°
(C) 28° – 30°
(D) 32° – 34°
(E) Answer not known

153. Match the following :

	Wearing methods		Technology used
(a)	Rapier	1.	Profile Reed
(b)	Projectile	2.	More than one shed is formed
(c)	Air Jet	3.	Torsion Rod
(d)	Multiphase	4.	Grippers

	(a)	(b)	(c)	(d)
(A)	2	3	4	1
(B)	4	3	1	2
(C)	3	4	2	1
(D)	4	1	2	3

(E) Answer not known

154. The length and weight of gripper projectile is

(A) 90 mm and 40 gm
(B) 100 mm and 50 gm
(C) 110 mm and 60 gm
(D) 120 mm and 70 gm
(E) Answer not known

155. Which one of the following are Semi Automatic Hand Loom?

(A) Chittaranjan Loom
(B) Pit-Loom
(C) Raised Loom
(D) Frame Loom
(E) Answer not known

156. Another name of fly shuttle frame loom is

(A) Fly-Shuttle Pit-Loom
(B) Four-Poster Fly Shuttle
(C) Fly Shuttle Raised Loom
(D) Throw-Shuttle Loom
(E) Answer not known

157. Maximum number of shafts actuated in a Dobby is

(A) 8
(B) 12
(C) 24
(D) 40
(E) Answer not known

158. Choose the correct match, with respect to frequency of primary motion for a 3×1 twill weave

(i) Crank shaft – 200 rpm, bottom shaft – 50 rpm tappet shaft – 100 rpm

(ii) Crank shaft – 100 rpm, bottom shaft – 200 rpm tappet shaft – 50 rpm

(iii) Crank shaft – 200 rpm, bottom shaft – 100 rpm tappet shaft – 50 rpm

(A) option (i) only
(B) option (i) and (ii) only
(C) option (iii) only
(D) option (ii) and (iii) only
(E) Answer not known

159. For continuous and Regular weaving of fabric, ———————— is must in power loom.

(A) Tertiary Motion
(B) Secondary Motion
(C) Primary Motion
(D) Shedding Motion
(E) Answer not known

160. Degree at which the Shed remains full open is

(A) 360° (B) 180°

(C) 270° (D) 90°

(E) Answer not known

161. What is Reed count in Stockport system?

(A) No. of dents / inch (B) No. of dents

(C) No. of dents / two inches (D) Inch / dents

(E) Answer not known

162. What is the process of threading the warp yarn through the heald shaft?

(A) Warping (B) Beaming

(C) Sizing (D) Drawing-in

(E) Answer not known

163. Assertion [A] : Too little or too much sizing causes an increase in warp and break during weaving

Reason [R] : Excessive size makes the yarn more extensible and too little size will be very smooth causes of lack of required friction

(A) [A] is true but [R] is false

(B) Both [A] and [R] are true; and [R] is the correct explanation of [A]

(C) [A] is false, [R] is true

(D) Both [A] and [R] are true, but [R] is not the correct explanation of [A] is correct

(E) Answer not known

164. Size materials/chemicals used in size paste is/are

(i) Starch

(ii) PVA

(iii) THPC

(iv) CMC

(A) (i) only

(B) (i) and (ii) only

(C) (i), (ii) and (iii) only

(D) (i), (ii) and (iv) only

(E) Answer not known

165. Arrange the following process is sequential order with respect to conversion of unsized warp yarn into sized warp yarn.

(1) sizing

(2) wetting

(3) separation

(4) drying

(A) (1), (3), (2), (4)
(B) (2), (3), (1), (4)
(C) (2), (1), (4), (3)
(D) (3), (1), (2), (4)
(E) Answer not known

166. Choose the incorrect statement with respect to the objectives of sizing

(A) to strengthen the yarn
(B) to make the outer surface of the yarn smoother
(C) to increase the friction between the yarn
(D) to reduce the warp end breakage
(E) Answer not known

167. The warp yarns are stored on a beam called a

(A) Weavers Beam
(B) Reserve Beam
(C) Sized Beam
(D) Back Beam
(E) Answer not known

168. Which of the following is not the basic mode of cross winding?

(A) Random winding
(B) Step precision winding
(C) Precision winding
(D) Traverse winding
(E) Answer not known

169. Name the fault in winding package in which coils of yarn slip off from improperly built ring frame bobbin during unwinding.

(A) Bad piecing
(B) Slough off
(C) Double gaiting
(D) Spinner's doubles
(E) Answer not known

170. A place in the fabric where warp and weft yarn escape the required interlacement is called

(A) Floats stitches
(B) Hang pick
(C) Lashing in
(D) Cracks
(E) Answer not known

171. Time taken for a winder to wind 1.3 Kgs of 20 NE yarn if the winder runs at 1000 M/min with 90% efficiency is

(A) 36 Minutes
(B) 39 Minutes
(C) 44 Minutes
(D) 49 Minutes
(E) Answer not known

172. Assertion [A]: In winding process, the yarn coils are laid over the yarn coils which were laid in the previous double traverse is called patterning.

Reason [R]: If the wind per double traverse is an integar, than the yarn come back to the same position on the package surface.

(A) [A] is true but [R] is false

(B) Both [A] and [R] are true: and [R] is the correct explanation of [A]

(C) [A] is false, [R] is true

(D) Both [A] and [R] are true, but [R] is not the correct explanation of [A] correct

(E) Answer not known

173. Choose the correct option(s), with respect to yarn winding

(i) In side withdrawal method, package is rotated and therefore yarn does not rotate

(ii) In over-end withdrawal method, the package does not rotate

(iii) Both side withdrawal and over-end withdrawal the amount of twist in the yarn does not change

(A) Option (i) only

(B) Option (i) and (ii) only

(C) Option (ii) and (iii) only

(D) Option (iv) only

(E) Answer not known

174. ———————— is the process of removing thick and thin places present in the yarn

(A) Cone winding
(B) Pirn winding
(C) Warping
(D) Sizing
(E) Answer not known

175. ———————— warping is mainly used in manufacturing of denim fabrics.

(A) Direct warping
(B) Sectional warping
(C) Ball warping
(D) Draw warping
(E) Answer not known

176. If the difference between the tensions applied to the opposite ends of each Fibre is increased, the Fibres will eventually slipover one another. It is shown that

Where,

T_1 and T_2 are the tensions in the Fibre n is the number of turns of twist β is the angle between the Fibre axes and the axis of the twisted element

(A) $\mu = (\pi Log_e\ T_1 / T_2) / n\beta$
(B) $\mu = (Log_e T_2 / T_1) / \pi\, n\, \beta$
(C) $\mu = (\beta\, Log_e T_1 / T_2) / \pi\, n$
(D) $\mu = (\beta\, Log_e T_2 / T_1) / \pi\, n$
(E) Answer not known

177. Filament yarns are not made by

(A) Wet spinning
(B) Dry spinning
(C) OE spinning
(D) Melt spinning
(E) Answer not known

178. What is the raw material used for Nylon 6?

(A) Ethylene Glycol
(B) Acrylo Nitrile
(C) Caprolactum
(D) Hexa Methylene diamine
(E) Answer not known

179. Which of the following fibre(s) is (are) manufactured by melt spinning process?

(i) Viscose
(ii) Cellulose Accetate
(iii) Nylon – 6
(iv) PVC

(A) (i) only
(B) (ii) and (iii) only
(C) (iii) only
(D) (iii) and (iv) only
(E) Answer not known

180. The mean angle between the chain molecules and the fibre axis is called as

(A) Orientation angle
(B) Degree of orientation
(C) Crystalline percentage
(D) Amorphous percentage
(E) Answer not known

181. This fibre is used for manufacturing bullet proof jackets

(A) Nylon 6, 6
(B) Kevlar
(C) Vinyl
(D) HDPE
(E) Answer not known

182. Choose the correct statement among the type

(i) Acrylic fibers refers to fiber containing atleast 85% acrylonitrile monomer

(ii) Modacrylic refers to the acrylonitrile must be less than 85% but greater than 35%

(iii) Acrylic fibers are made using acrylonitrile as one of the major monomer

(iv) Acrylic fibers refer to fiber containing atleast 35% of acrylonitrile monomer

(A) (i) and (ii) only
(B) (ii), (iii) and (iv) only
(C) (i), (ii) and (iii) only
(D) (iii) and (iv) only
(E) Answer not known

183. The melting point of Nylon fibre is

(A) 200ºC
(B) 225ºC
(C) 250ºC
(D) 275ºC
(E) Answer not known

184. This is the fibre manufactured from regenerated natural protein

(A) Mohair
(B) Alpaca
(C) Azlon
(D) Pan fibres
(E) Answer not known

185. What is the specific gravity of viscose rayon fibre?

(A) 1.52 gm/cc
(B) 1.25 gm/cc
(C) 1.52 gm
(D) 1.55 gm/cc
(E) Answer not known

186. Which of the following statement is not correct about the chemical property of wool fibre?

(A) Wool is not destroyed by dilute acid
(B) Wool is destroyed by concentrated acid
(C) Wool is quickly destroyed by strong alkali
(D) Wool is not destroyed by concentrated acid
(E) Answer not known

187. Choose the wrong match(es) type

1.	Silk	–	Fibroin is the main constituent
2.	Silk	–	Sulphur-containing side groups are largely available
3.	Silk and wool	–	The two most important, natural protein fibers for textile uses
4.	Wool	–	Fibre consists of roughly circular tapering from root to the tip

(A) (1) and (3) only
(B) (2) only
(C) (3) and (4) only
(D) (4) only
(E) Answer not known

188. Longest fibre naturally available is

(A) Wool
(B) Silk
(C) Flax
(D) Jute
(E) Answer not known

189. Which of the following is the strongest natural fibre?

(A) Cotton
(B) Wool
(C) Silk
(D) Jute
(E) Answer not known

190. Which of the following statements are true about the chemical property of cotton fibre?

(1) Cotton has an excellent resistance to alkalies

(2) Cotton is attacked by cold dilute acids

(3) Cotton is not affected by cold weak acids

(4) Cotton is attacked by cold concentrated acids

(A) (1), (2) and (3)
(B) (1), (3) and (4)
(C) (2), (3), and (4)
(D) (2) and (1)
(E) Answer not known

191. Which of the following is correctly period?

where,

T_2 = Leaving tension

T_1 = Incoming tension

μ = Co-efficient of friction

θ = Angle of contact

(A) $T_2 / T_1 = e^{\mu\theta}$
(B) $T_1 / T_2 = e^{\mu\theta}$
(C) $T_2 / T_1 = \mu\, e^{\theta}$
(D) $T_1 / T_2 = \mu\, e^{\theta}$
(E) Answer not known

192. Arrange the following fibre in descending order with respect to their moisture regain value at 65% RH

(1) Nylon

(2) Acetate

(3) Cotton

(4) Wool

(5) Silk

(A) (1), (2), (3), (5), (4)
(B) (2), (1), (3), (4), (5)
(C) (5), (4), (3), (1), (2)
(D) (4), (5), (3), (2), (1)
(E) Answer not known

193. Match the following. Match correctly the fibre and their source.

(a)	Cotton	1.	Varieties of rock
(b)	Polyester	2.	Protein fibre
(c)	Silk	3.	Long chain synthetic polymer
(d)	Asbestos	4.	Cellulosic fibre

	(a)	(b)	(c)	(d)
(A)	4	3	2	1
(B)	3	2	1	4
(C)	3	4	2	1
(D)	2	3	1	4

(E) Answer not known

194. Match correctly the structure of the cotton fibre with their microscopical view

(a)	Normal mature cotton fibre	1.	Empty channel running length wise through the centre of the fibre
(b)	Immature fibre	2.	Oval (or) kidney shaped
(c)	Surface of cotton fibre	3.	U shaped
(d)	Lumen	4.	Wrinkled and striated

	(a)	(b)	(c)	(d)
(A)	1	2	3	4
(B)	4	3	2	1
(C)	4	1	2	3
(D)	1	3	2	4

(E) Answer not known

195. Match the following :

	Fibre Type		Chemical Name
(a)	Polyamide	1.	Polyethylene terephthalate
(b)	Polyester	2.	Polypropylene
(c)	Polyolefin	3.	Polyurethane
(d)	Lycra	4.	Nylon 6

	(a)	(b)	(c)	(d)
(A)	2	3	4	1
(B)	3	1	4	2
(C)	4	1	2	3
(D)	4	3	1	2

(E) Answer not known

196. Lyocell is a

(A) Vinyl fibre
(B) Regenerated cellulose fibre
(C) Elastomeric fibre
(D) Aramid fibre
(E) Answer not known

197. Among the following, this is not natural fibre

(A) Hemp
(B) Cotton
(C) Sisal
(D) Viscose rayon
(E) Answer not known

198. Correct production sequence of raw silk from its cocoon are

(A) Drying → Sorting → Cooking → Reeling
(B) Sorting → Cooking→ Reeling → Drying
(C) Cooking → Sorting → Reeling → Drying
(D) Sorting → Drying→ Cooking → Reeling
(E) Answer not known

199. Mention the range of viscose rayon elongation %

(A) 20 to 24%
(B) 17 to 22%
(C) 7 to 9%
(D) 26 to 30%
(E) Answer not known

200. Arrange the fibre properties in the order of essential to desirable

(1) Length and Uniformity

(2) Moisture

(3) Lustre

(4) Strength and Elongation

(5) Crimp

(6) Fineness and Maturity

(A) (1), (2), (4), (6), (3), (5)

(B) (1), (4), (6), (5), (2), (3)

(C) (2), (6), (4), (3), (1), (5)

(D) (5), (6), (3), (1), (2), (4)

(E) Answer not known