

Question Booklet No. :

CETT/2024

Register
Number

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2024

Paper – I

TEXTILE TECHNOLOGY
(Degree 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 shall 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



1. Choose the wrong statement(s) :

- 1. The extruded filaments are with polymers of disordered state
- 2. The draw ratio for thermoplastic fibres are generally situated between 3 and 5
- 3. Drawing is attained in thermo plastic fibres below the glass transition temperature
- 4. The draw ratio is low for technical fibres

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

2. Adipic acid is a monomer for the production of

- (A) Polyethylene terephthalate
- ~~(B) Nylon 6, 6~~
- (C) Nylon 6, 4
- (D) Nylon 6, 10
- (E) Answer not known

3. A fibre is to be considered as mature when the cell wall of the moisture swollen fibre represents _____% of the round cross section.

- (A) 5 – 10%
- (B) 10 – 25%
- (C) 30 – 45%
- ~~(D) 50 – 80%~~
- (E) Answer not known

4. Choose the right answers among the following :

- (i) As the extension increases, the elastic recovery increases
- (ii) As the R.A. % of fibre environment increases, the elastic recovery reduces
- (iii) The straining influences the recovery property
- (iv) The temperature of fibre medium (or) environment affects the elastic recovery

- (A) (i) is correct
- (B) (ii) and (iii) are correct
- (C) (i), (ii) and (iii) are correct
- ~~(D) (ii), (iii) and (iv) are correct~~
- (E) Answer not known

5. Which one of the following polymer can be produced by both dry and wet spinning techniques?
- (A) Viscose
 - (B) Polyacrylonitrile
 - (C) Poly Vinyl Alcohol
 - (D) Polyester
 - (E) Answer not known
6. The molecular weight of nylon polymer for spinning is
- (A) 20,000
 - (B) 25,000
 - (C) 30,000
 - (D) 35,000
 - (E) Answer not known
7. The expansion of liquid thread on emerging from the spinneret is known as
- (A) Melt fracture
 - (B) Dieswell
 - (C) Draw resonance
 - (D) Apparent viscosity
 - (E) Answer not known
8. _____ amino acid is responsible for relatively higher strength of wool fibres.
- (A) Threonine
 - (B) Serine
 - (C) Cystine
 - (D) Tryosine
 - (E) Answer not known

9. Point out the listed item is not under the category of twill weave
- (A) Warp and weft face twill (B) Zig Zag twill
~~(C)~~ Wrinkle twill (D) Broken twill
(E) Answer not known
10. The two different pressure levels used to measure fabric thickness in fast compression meter are _____ and _____.
- (A) 1 gf/cm² ; 50 gf/cm² ~~(B)~~ 2 gf/cm² ; 100 gf/cm²
(C) 10 gf/cm² ; 1000 gf/cm² (D) 100 gf/cm² ; 10000 gf/cm²
(E) Answer not known
11. The use of straight draft in woven fabric production gives
- ~~(A)~~ lower end breaks than skip draft
(B) more end breaks than skip draft
(C) same number of end breaks to that of skip draft
(D) initially more end breaks when the diameter of the warp beam is higher and then gives same number of end breaks to that of skip draft
(E) Answer not known
12. _____ twill is to form Zig-Zag effect in the fabric.
- (A) Broken ~~(B)~~ Curved
(C) Herring bone (D) Transposed
(E) Answer not known
13. The pressure range exit of the multihole relay nozzle is _____ bar.
- (A) 1 – 3 ~~(B)~~ 3 – 6
(C) 6 – 7 (D) 8 – 10
(E) Answer not known

14. The stroke of the plunger is normally _____ mm may be required for texturised and twisted yarn in air jet loom.
- (A) 4 to 6 (B) 6 to 8
~~(C) 8 to 10~~ (D) 10 to 12
 (E) Answer not known
15. In epicyclic gear arrangement, the rotational speed of first wheel is ' f ' rpm, the rotational speed of the arm is ' a ' rpm. If ' e ' is the value of the gear train, then the rotational speed of the last wheel in rpm is equal to
- (A) $f + e(f - a)$ (B) $a + f(e - a)$
~~(C) $a + e(f - a)$~~ (D) $a + e(f + a)$
 (E) Answer not known
16. The speed range of the double lift jacquard machine is about
- (A) 100 – 120 picks/minute (B) 140 – 160 picks/minute
~~(C) 180 – 200 picks/minute~~ (D) 60 – 80 picks/minute
 (E) Answer not known
17. In negative take-up mechanism, the number of picks per unit distance can be increased by
- (A) increasing the let-off speed of warp thread
 (B) increasing the dead weight present on the lever in take-up mechanism
 (C) increasing the tension at fell of the cloth
~~(D) decreasing the dead weight present on the lever in the take-up mechanism~~
 (E) Answer not known

18. The mechanical clearer efficiency is between _____%.
- (A) 30 – 40
(C) 70 – 80
(E) Answer not known
- ~~(B)~~ 50 – 60
(D) 90 – 99
19. Which one of the following is not the objective of sizing?
- (A) Reducing the incidence of warp breaks during weaving
~~(B)~~ Reducing the abrasion resistance of warp threads
(C) Increasing the strength of warp threads
(D) Binding the protruding fibres on the surface of the warp threads
(E) Answer not known
20. Which of the following parameters were measured for yarn faults by yarn clearing device?
- (A) strength and elongation
(B) colour and roughness
(C) hairiness and abrasion
~~(D)~~ thickness or diameter and length
(E) Answer not known
21. _____ dyes on cellulosic fibres give dyeing with good to very good fastness to washing and other wet properties.
- ~~(A)~~ Reactive
(C) Acid
(E) Answer not known
- (B) Direct
(D) Disperse
22. _____ objects have high reflectance at all wave lengths in the visible region of the spectrum.
- ~~(A)~~ White
(C) Red
(E) Answer not known
- (B) Blue
(D) Yellow

23. The main purpose of crimping of fibres is to
- (A) Improve the tensile strength
 - ~~(B)~~ Improve fibre to fibre cohesion
 - (C) Improve the stability properties
 - (D) Improve the stiffness
 - (E) Answer not known
24. The dispersing agent used for the preparation of dyebath with disperse dye is
- (A) Na_2CO_3
 - ~~(C)~~ CH_3COOH
 - (B) H_2SO_4
 - (D) NaOH
 - (E) Answer not known
25. The Zeta potential formed during dyeing of cotton fibres with direct class of dye is reduced with help of
- (A) Na_2CO_3
 - ~~(B)~~ Na_2SO_4
 - (C) Na_2SiO_3
 - (D) NaOH
 - (E) Answer not known
26. Which one of the following is not a reason for bronzing of shade during sulphur dyeing?
- (A) Excessive delay in lifting of the material out of dyebath and washing off
 - (B) Overloading of the fibre with dyestuff
 - (C) Insufficient amount of sodium sulphide
 - ~~(D)~~ Presence of free sulphur which gets converted into sulphuric acid during storage
 - (E) Answer not known

27. Choose the advantages of two phase fixation method for polyester/cotton printed with disperse/reactive dye are
- (A) No Yellowness on polyester and full colour value
 - (B) No Yellowness on cotton and less fixation of reactive dye
 - (C) Yellowness on polyester and less colour yield
 - (D) Yellowness on polyester and full colour value
 - (E) Answer not known
28. On dipping of protein fibres in water develops
- (A) Zwitter ion – transfer of protons from one end to other end
 - (B) Zwitter ion – transfer of electron from one end to other end
 - (C) Zeta potential – development of negative potential
 - (D) Zeta potential – development of positive potential
 - (E) Answer not known
29. The thermal stability of amylase enzyme is enhanced with help of
- (A) Sodium carbonate
 - (B) Sodium chloride
 - (C) Sodium chlorite
 - (D) Sodium hydroxide
 - (E) Answer not known
30. Choose the dye preferred to develop colour design on colour background, with reactive dye as background colour, using resist style technique
- (A) Azoic colour
 - (B) Basic dye
 - (C) Direct dye
 - (D) Solubilised vat dye
 - (E) Answer not known
31. The surface tension of water is
- (A) 37 dynes/cm
 - (B) 18 dynes/cm
 - (C) 92 dynes/cm
 - (D) 73 dynes/cm
 - (E) Answer not known

32. The load given to the folded specimen during the 'Shirley' crease recovery test is
- (A) 1 kg ~~(B) 2 kg~~
 (C) 3 kg (D) 4 kg
 (E) Answer not known
33. Amongst the following, select the correct descending order of crease resistance
- (A) Wool, cotton, viscose rayon, flax
 (B) Wool, flax, cotton, silk
 (C) Silk, wool, flax, cotton
~~(D) Silk, viscose rayon, cotton, flax~~
 (E) Answer not known
34. In ballistic testing machine, the specimen is anchored to the pendulum in line with a point. That point is known as
- (A) The centre of gravity
 (B) Radius of gyration
 (C) Moment of inertia
~~(D) Centre of percussion of the pendulum~~
 (E) Answer not known
35. Choose the correct relationship
 where θ -Angle of twist, d -diameter of yarn
- (A) $\tan \theta = \frac{\text{length of yarn}}{\pi \times d}$ (B) $\tan \theta \propto \frac{\text{turns per inch}}{d}$
~~(C) $\tan \theta \propto \frac{\text{turns per inch}}{\sqrt{\text{count in } Ne}}$~~ (D) $\tan \theta \propto \frac{\sqrt{\text{count in } Ne}}{\text{turns per inch}}$
 (E) Answer not known

36. The Elastic recovery value of fibres in decreasing order for the given below fibres at 5% extension is

1. Wool
2. Nylon
3. Polyethylene Terephthalate
4. Viscose rayon

~~(A)~~ 2 - 1 - 3 - 4

(B) 2 - 1 - 4 - 3

(C) 1 - 2 - 4 - 3

(D) 1 - 2 - 3 - 4

(E) Answer not known

37. The weight of pirn excluding empty bobbin weight is 25 g. The linear density of yarn is 40 Tex. Calculate the length of yarn in meters present in the pirn.

(A) 150

(B) 240

~~(C)~~ 625

(D) 1000

(E) Answer not known

38. Which one is a TRUE statement related to torsional rigidity of fibres?

(A) Torsional rigidity of orlon is dependent of tension

~~(B)~~ Torsional rigidity of orlon is independent of tension

(C) Torsional rigidity of cotton is independent of temperature

(D) Torsional rigidity of fibro is indirectly proportional to tex

(E) Answer not known

39. In the Stelometer, the load on the fibre bundle is directly proportional to _____ [Where, θ – The angle through which the pendulum has moved]
- ~~(A)~~ $\sin \theta$ (B) $\cos \theta$
(C) $\tan \theta$ (D) $\cot \theta$
(E) Answer not known
40. _____ load is applied during compressive test for textile fibres.
- (A) 0.1 gf ~~(B)~~ 1 gf
(C) 10 gf (D) 100 gf
(E) Answer not known
41. As per ISO, the right way of representing the stitched seam is
- (A) 0.00 ~~(B)~~ 0.00.00
(C) 00.00.00 (D) 00.00
(E) Answer not known
42. The following bacteria does not comes under Gram–Positive
- (A) Pyogens
(B) Staphylococcus epidermids
(C) Corynebacterium diphtheroids
~~(D)~~ E-Coli
(E) Answer not known
43. Identify the factors that increases UVR transmission of textile material when wet condition.
- ~~(A)~~ Optical (B) Chemical
(C) Mechanical (D) Physical
(E) Answer not known

44. Parameter influencing separation function during construction
- (A) Mass per unit area (B) Impact resistance
(C) Tear propagation resistance (D) Resistance to decay
(E) Answer not known
45. Parameter influencing separation function after completion of construction
- (A) Effective opening size (B) UV resistance
(C) Impact resistance. (D) Resistance to decay
(E) Answer not known
46. The geotextile applications/ function where textile materials reduce runoff and protect soil to enhance vegetation is
- (A) Drainage (B) Erosion control
(C) Filtration (D) Separation
(E) Answer not known
47. _____ weave(s) are/is widely used in conveyor belt fabrics.
- (i) Plain
(ii) Twill
(iii) Basket
- (A) (i) and (ii) only (B) (ii) and (iii) only
 (C) (i) and (iii) only (D) (iii) only
(E) Answer not known
48. _____ filters are used in bag houses and fabric filters for dust filtration.
- (A) Woven (B) Knitted
 (C) Needle punched (D) Spun bonded
(E) Answer not known

49. _____ filter media is used to filter and clean industrial fluids and oils extensively used in machinery manufacturing plants.
- (A) Warp knit (B) Weft knit
(C) Needle punched ~~(D) Spun bonded~~
(E) Answer not known
50. In cars, _____ is the main reinforcement material for toothed belts.
- (A) Nylon (B) Acrylic
(C) Viscose rayon ~~(D) Polyester~~
(E) Answer not known
51. Main requirements in airbag fibre materials :
- (i) High strength
(ii) Moisture absorption
(iii) Heat stability
- (A) (i) and (ii) only (B) (ii) and (iii) only
~~(C) (i) and (iii) only~~ (D) (iii) only
(E) Answer not known
52. When the twist multiplier increases what will happen in the packing density of the ring spun yarn?
- (A) Decreases
(B) No change will happen
~~(C) Increases~~
(D) First decrease and increase
(E) Answer not known

53. Match the following :

- | | |
|---------------------|--------------------------------|
| (a) Dref system | 1. Tangential air flow spirals |
| (b) Vortex spinning | 2. Spinning triangle |
| (c) Rotor spinning | 3. Friction spinning |
| (d) Ring spinning | 4. Cotton spinning |
| | 5. Feed tube |

- | | (a) | (b) | (c) | (d) |
|----------------|------------------|-----|-----|-----|
| (A) | 3 | 1 | 5 | 2 |
| (B) | 3 | 1 | 4 | 5 |
| (C) | 4 | 3 | 2 | 5 |
| (D) | 4 | 3 | 1 | 5 |
| (E) | Answer not known | | | |

54. For producing, 6 Ne yarn at rotor spinning machine, the trash present in the shiver fed to the rotor should not exceed

- | | |
|----------------------|----------|
| (A) 0.3% | (B) 0.5% |
| (C) 0.7% | (D) 1.0% |
| (E) Answer not known | |

55. The Bach doubling of fibres in rotor for the following parameters is

Count of yarn : 10 Ne

Twist per metre : 800

Diameter of rotor : 35 mm

- | | |
|----------------------|----------|
| (A) 88 | (B) 138 |
| (C) 1380 | (D) 8800 |
| (E) Answer not known | |

56. The twist is transmitted _____ the direction of movement of yarn in rotor spinning, _____ direction of movement of yarn in ring spinning.

- | | |
|---------------------------|----------------------------------|
| (A) against ; in the same | (B) against ; against |
| (C) in the same ; against | (D) in the same ; in the same |
| (E) Answer not known | |

57. Usually three to eight strands of silk filaments are twisted together in one direction to form a yarn called
- (A) Single
 - (B) Voile
 - (C) Grenadine
 - (D) Crepe
 - (E) Answer not known
58. In the ring frame, the traveller speed
- (A) remains constant during up and down movement of ring rail
 - (B) is higher while winding at base compared to winding at tip
 - (C) is higher while winding at tip compared to winding at base
 - (D) is higher while winding at middle compared to winding at tip and base
 - (E) Answer not known
59. Select the wrong statement with respect of Balloon control ring used in ring frame
- (A) it is kept in between lappet and ring
 - (B) it divides a large single balloon into two smaller sub balloons
 - (C) it gives smooth surface to the yarn
 - (D) it causes melt spot formation in processing synthetic fibres
 - (E) Answer not known
60. Intensity of opening is least in
- (A) Kischner beater
 - (B) Between cylinder and flat of card
 - (C) Between feed roller and ticker-in of card
 - (D) Three bladed beater
 - (E) Answer not known

61. In needling, penetration density (E) can be calculated by

[N_z = number of needles in the board

A_v = actual needle board surface]

(A) $\frac{A_v}{N_z}$

~~(B)~~ $\frac{N_z}{A_v}$

(C) $\frac{N_z^2}{A_v}$

(D) $\frac{A_v^2}{N_z}$

(E) Answer not known

62. Empirical relation between fibre diameter to be processed and minimum achievable web areal density is

[mF_{\min} – minimum areal density, g/m^2

Tt_f – fibre fineness, dtex]

(A) $mF_{\min} = \frac{5}{\sqrt{Tt_f}}$

~~(B)~~ $mF_{\min} = 5 \cdot \sqrt{Tt_f}$

(C) $mF_{\min} = \frac{\sqrt{Tt_f}}{5}$

(D) $mF_{\min} = 5 \cdot Tt_f$

(E) Answer not known

63. The _____ nonwoven fabrics are preferred for surgical gowns, scrub suits and drapes because of their excellent comfort, softness and breathability characteristics

(A) Needle punched

(B) Spun bonded

~~(C)~~ Spun laced

(D) Stitch bonded

(E) Answer not known

64. Match the following :

- | | |
|---------------------|-----------------------|
| (a) Dry laid | 1. Polymer laid |
| (b) Spun bond | 2. Mechanical bond |
| (c) Spun lace | 3. Cotton cards |
| (d) Needle punching | 4. Hydro entanglement |

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

65. Choose the incorrect statement related to beard needles used in knitting process

- ~~(A)~~ It takes longer time for loop formation than latch needles
- (B) It is not stronger than latch needles
- (C) It produces superior knit stitches than latch needles
- (D) Its cost is lesser than latch needles
- (E) Answer not known

66. Identify the important cause for drop stitch formation during knitting of fabric

- ~~(A)~~ Wrong needle timing set
- (B) Needles move too freely in their slot
- (C) Dial height is too low
- (D) Dial height is too high
- (E) Answer not known

67. The elongation of cotton knit fabrics of plain, rib and interlock structures arrayed from high to low is
- (A) Plain > Rib > Interlock ~~(B) Rib > Plain > Interlock~~
(C) Interlock > Rib > Plain (D) Rib > Interlock > Plain
(E) Answer not known
68. In knitting the _____ stitch is made when a needle receives a new yarn while still holding its former loop, thus forming two loops in the one needle hook.
- ~~(A) Tuck~~ (B) Rib
(C) Float (D) Knit
(E) Answer not known
69. The 2 × 2 rib version of full - cardigan is termed as
- (A) Swiss Pique (B) Cortina
(C) Fisherman's Rib ~~(D) Sweater Stitch~~
(E) Answer not known
70. A guide bar lapping movement of only overlaps and no underlaps is termed as
- (A) Closed lap ~~(B) Open lap~~
(C) Laying - in (D) Miss lapping
(E) Answer not known
71. Find out the gauge of a 40 inch width double bed flat knitting machine if the total number of needles in the machine is 440
- ~~(A) 5.5~~ (B) 6.5
(C) 7.5 (D) 8.5
(E) Answer not known

72. The BOD₅ value of enzyme desizing effluent is between
- (A) 4300 – 5100 ppm (B) 500 – 2000 ppm
 (C) 2500 – 3000 ppm (D) 6000 – 9000 ppm
 (E) Answer not known
73. The pH range of the effluent to be maintained during activated sludge process is
- (A) 6.5 – 9.0 (B) 2.5 – 8.0
 (C) 9.5 – 12.5 (D) 1.0 – 2.0
 (E) Answer not known
74. Find out the suitable enzyme for desizing process.
- (A) Amylase (B) Catalase
 (C) Protease (D) Lipopeptides
 (E) Answer not known
75. Identify the most suitable enzyme for biopolishing of cotton material
- (A) Celluloses (B) Proteases
 (C) Catalases (D) Lipases
 (E) Answer not known
76. How do you estimate the wet pick up% of the finished fabric?
- (A) $\% \text{ Wet pickup} = \frac{\text{Wt. of solution applied}}{\text{Wt. of dry fabric}} \times 100$
 (B) $\% \text{ Wet pickup} = \frac{\text{Wt. of dry fabric}}{\text{Wt. of solution applied}} \times 100$
 (C) $\% \text{ Wet pickup} = \text{Wt. of solution applied} \times \text{Wt. of dry fabric} \times 100$
 (D) $\% \text{ Wet pickup} = \text{Wt. of dry fabric} + \text{Wt. of solution applied} \times 100$
 (E) Answer not known

77. _____ process gives cotton thread a hard finish that shields the thread from abrasion and improves ply security.
- (A) Garsing (B) ~~Glazed~~
(C) Mercerisation (D) Lubricant
(E) Answer not known
78. Identify the approximate SPF value of cotton tricot fabric
- (A) 17 (B) 21
(C) ~~4~~ (D) 32
(E) Answer not known
79. The moisture content level on the cotton and viscose fabrics is to be maintained during compressive shrinkage process
- (A) 2 – 5 % (B) 7 – 10 %
(C) 10 – 15 % (D) ~~20 – 25 %~~
(E) Answer not known
80. The main advantage of three bowl padding mangle in textile finishing is
- (A) Control the penetration of liquor through the fabric
(B) Minimise the use of chemicals
(C) Minimise the use of water
(D) ~~Better penetration of liquor through the fabric~~
(E) Answer not known
81. Identify the effect obtained from sueding process
- (A) ~~Very low pile on a fabric surface~~
(B) High pile fur - like effects on fabric surface
(C) Raised filament loop surfaces
(D) Bed blanket finishes
(E) Answer not known

82. In garment industry "WIP" stands for
- (A) Width in percentage (B) Work in progress
(C) Wear in percentage ~~(D) Work in process~~
(E) Answer not known
83. 100% inspection of a rejected lot is also called as
- ~~(A) Screening~~ (B) Spot checking
(C) Rechecking (D) Deep checking
(E) Answer not known
84. _____ spreading mode is used for Velvet or Plush to prevent the plies from slipping during the spreading
- (A) Face up in a single direction
(B) Face up in both directions
~~(C) Face to face in a single direction~~
(D) Face to face in both directions
(E) Answer not known
85. In the following which one is not a bed type of sewing machine.
- (A) Flat bed (B) Cylinder bed
~~(C) Hoist bed~~ (D) Post bed
(E) Answer not known

86. _____ machine sew a number of stitches across the point to be reinforced.
- (A) Bar tack (B) Label sewer
(C) Button sew (D) Button hole
(E) Answer not known
87. In the following which one is not a factor of seam performance
- (A) Elasticity (B) Strength
(C) Flexibility (D) Thread consumption
(E) Answer not known
88. In the garment manufacturing process, the class 600 stitches is also called as
- (A) Safety stitches (B) Cover stitches
(C) Cording stitches (D) Chain stitches
(E) Answer not known
89. The problem occurred by needle feed in the fabric is overcome by
- (A) Puller feed (B) Differential feed
 (C) Compound feed (D) Adjustable top feed
(E) Answer not known

90. Two or more pieces of fabrics joined by over lapping at the needle is called
- (A) Superimposed seam (B) Bound seam
(C) Flat seam ~~(D) Lapped seam~~
(E) Answer not known
91. 400 stitch class is characterized by
- (A) Intralooping and Interlooping of threads
~~(B) Interlooping and Interlacing of threads~~
(C) Interlacing and Intralooping of threads
(D) Interlooping, Interlacing and Intralooping of threads
(E) Answer not known
92. The tightness factor range between _____ and _____ for most of the plain knitted fabrics for garments.
- (A) 0.5 and 0.7 (B) 0.8 and 1.2
~~(C) 1.3 and 1.5~~ (D) 1.6 and 2.0
(E) Answer not known
93. The child and adolescent labour (Prohibition and Regulation) Act was enacted during
- ~~(A) 1986~~ (B) 1951
(C) 2016 (D) 1923
(E) Answer not known

94. The quantity of steam in terms of Kg required to remove one Kg of water from wet fabric is
- (A) 6.1 (B) 1.6
(C) 0.6 (D) 3.6
(E) Answer not known
95. Choose the type of system that supports decision making responsibilities for all types of managers and business professionals.
- (A) Process control systems
(B) Enterprise collaboration systems
(C) Management support systems
(D) Operators support systems
(E) Answer not known
96. The correct order of 5's' out of the following is
1. Seiton
 2. Shitsuke
 3. Seiri
 4. Seiketsu
 5. Seiso
- (A) 3-1-4-5-2 (B) 3-1-5-4-2
(C) 1-3-4-2-5 (D) 1-3-2-4-5
(E) Answer not known

97. The allowance value that is accepted and considered in arriving standard time for double needle lock stitch machine is

- (A) 11%
- (B) 12%
- (C) 13%
- ~~(D) 14%~~
- (E) Answer not known

98. Select from the following, which constitute the cost of production.

- (A) Prime Cost + Factory overhead
- ~~(B) Works Cost + Office and administration overhead~~
- (C) Works Cost + Prime Cost
- (D) Works Cost + Selling and Distribution overhead
- (E) Answer not known

99. All direct cost are called as

- (A) Distribution overhead
- (B) Marketing overhead
- ~~(C) Prime cost~~
- (D) Factory overhead
- (E) Answer not known

100. The work measurement does NOT decides

- (A) Equipment requirements
- (B) Man power requirements
- (C) Time required to do a job
- (D) Better product quality
- (E) Answer not known

101. The number of workers in a group is decided by

- (A) Multiple activity chart
- (B) Outline process chart
- (C) Flow process chart
- (D) Two - handed process chart
- (E) Answer not known

102. The study that deals with “how a job should be done, checking of way it is done and determination of better or simpler way of doing the job”.

- (A) Method study
- (B) Time study
- (C) Work study
- (D) Motion study
- (E) Answer not known

103. Choose the correct combinations of structural parameter and their probable investigation techniques :

Structural parameter	Investigating techniques
(a) Tacticity	1. Transmission electron microscopy
(b) Lamellar length	2. Electron diffraction
(c) Crystal structure	3. Raman Spectroscopy
(d) Constitution	4. Nuclear magnetic resonance

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

104. Crimping of wet spun acrylic fibres is carried out at _____ temperatures.

- | | |
|-----------------|--------------------------|
| (A) 55 – 60°C | (B) 65 – 70°C |
| (C) 100 – 110°C | (D) 85 – 90°C |
| (E) | Answer not known |

105. The value of Melt Flow Rates (MFR) of polypropylene polymer used for fiber formation is

- | | |
|--------|-------------------|
| (A) 6 | (B) 8 |
| (C) 10 | (D) 12 |
| (E) | Answer not known |

106. Shear modulus is ————— of the fibre.

- (A) Ratio between shear stress to shear strain
- (B) Addition of shear stress and shear strain
- (C) Multiplication of shear stress and shear strain
- (D) Difference between shear stress and shear strain
- (E) Answer not known

107. The relative permittivity (ϵ_r) is ————— where, C_p is equivalent parallel capacitance and C_o is capacitance of condenser with a vacuum as dielectric

- (A) C_o / C_p
- (B) C_p / C_o
- (C) $C_o \times C_p$
- (D) $C_o + C_p$
- (E) Answer not known

108. Which of the following techniques is used to determine crystallinity and orientation of crystals in fibre?

- (A) Density measurement
- (B) Differential scanning calorimetry
- (C) X ray diffraction
- (D) Sonic modulus
- (E) Answer not known

109. Match the following fibres based on the heat of wetting values (Cal/g) of dry fibers form zero regain :

- | | | |
|-------------------------|----|----|
| (a) Wool | 1. | 18 |
| (b) Cotton (Mercerised) | 2. | 1 |
| (c) Acetate | 3. | 27 |
| (d) Polyester | 4. | 8 |

- | | (a) | (b) | (c) | (d) |
|--------------------------------------|------------------|-----|-----|-----|
| (A) | 2 | 4 | 3 | 1 |
| <input checked="" type="radio"/> (B) | 3 | 1 | 4 | 2 |
| (C) | 3 | 4 | 1 | 2 |
| (D) | 4 | 3 | 1 | 2 |
| (E) | Answer not known | | | |

110. Filament yarns produced at speeds upto _____ m/min are known as Low Oriented Yarn (LOY)
- (A) 1000 ~~(B) 1800~~
(C) 2800 (D) 3500
(E) Answer not known
111. Which of the following fibre feels cool to touch, soft and is inelastic?
- ~~(A) Cotton~~ (B) Wool
(C) Acetate (D) Acrylic
(E) Answer not known
112. A mixture of acetate and cotton fibre can be quantitatively analysed by treating with _____ at 25°C for 40 min.
- ~~(A) Acetone~~ (B) Sodium hydroxide
(C) Formic acid (D) Dimethyl formamide
(E) Answer not known
113. In staining test, when cellulosic fibres are treated with shirlastain A for one minute and then rinsed, the colour of bleached cotton fibre changes to
- (A) Yellow (B) Green
~~(C) Violet~~ (D) Red
(E) Answer not known
114. The appropriate length to breadth ratio of cotton fibre is about
- ~~(A) 1400~~ (B) 2800
(C) 3000 (D) 33×10^6
(E) Answer not known

115. Water - Jet loom were first developed in Czechoslovakia in the year of

- ~~(A)~~ 1950 (B) 1960
(C) 1967 (D) 1970
(E) Answer not known

116. Choose the dimensions of the gripper projectile in length, width and thickness are

- (A) 40 mm × 8 mm × 3 mm ~~(B)~~ 90 mm × 14 mm × 6 mm
(C) 110 mm × 16 mm × 10 mm (D) 130 mm × 18 mm × 14 mm
(E) Answer not known

117. Match the following :

- | | |
|---------------------|-------------------------|
| (a) Loop transfer | 1. Dewas system |
| (b) Tip transfer | 2. Larger floor space |
| (c) Flexible rapier | 3. Iwer system |
| (d) Rigid rapier | 4. Gabler system |
| | 5. Gripper Head |
| | 6. Wider width machines |

- | | (a) | (b) | (c) | (d) |
|----------------|------------------|-----|-----|-----|
| (A) | 4 | 1 | 6 | 2 |
| (B) | 4 | 3 | 2 | 6 |
| (C) | 5 | 1 | 2 | 6 |
| (D) | 5 | 1 | 6 | 3 |
| (E) | Answer not known | | | |

118. Analysis the relationship used to calculate the average warp tension (T_W), where F is friction force acting on the beam, r is radius of the beam ruffle and R is radius of the warp beam with yarn.

- (A) $T_W = (F \times R) / r$ ~~(B)~~ $T_W = (F \times r) / R$
(C) $T_W = (R \times r) / F$ (D) $T_W = F / (R \times r)$
(E) Answer not known

119. Calculate the sley eccentricity if the loom having 6.25 cm crank radius (r) and 15 cm length of connecting arm (l)

~~(A)~~ $\frac{6.25}{15}$

(B) $\frac{12.50}{15}$

(C) $\frac{\pi \times 6.25}{15}$

(D) $\frac{\pi \times 12.50}{15}$

(E) Answer not known

120. One of the following is not the function of selvedge

(A) to bind atleast one of the extreme outer ends with the weft to prevent cloth fraying

(B) To provide extra strength in region where cloth is held by clips in subsequent processes

(C) To provide ends capable of with standing the greater abrasion by the reed, occurring at the warp edge

~~(D)~~ To identify the length of the cloth

(E) Answer not known

121. The full diameter of a pirn wound from cotton yarn is 32 mm, the bare-pirn diameter at the nose of the chase is 14 mm and the traverse is 34 mm. If the chase angle is ' α ' then the $\tan \alpha$ is equal to

(A) $\frac{34 - 32}{14 \times 2}$

~~(B)~~ $\frac{32 - 14}{34 \times 2}$

(C) $\frac{2 \times 34}{32 - 14}$

(D) $\frac{32 - 14}{34}$

(E) Answer not known

122. The taper angle of the cones used for high speed warping process is about

~~(A)~~ 6°

(B) 16°

(C) 26°

(D) 36°

(E) Answer not known

123. In munsell colour system 5Y8/10 indicates

- (A) Light yellow of fairly high saturation hue = 5Y, Value = 8, chroma = 10
- (B) Medium Yellow of fairly low saturation hue = 5 Y, Yellow = 8, Chroma = 10
- (C) High Yellow of fairly high saturation hue = 5Y, Value = 8, Chroma = 10
- (D) High Yellow of fairly medium saturation hue = 5Y, Value = 8, Chroma = 10
- (E) Answer not known

124. Identify the photosensitive chemical, used for the preparation of screen for printing

- (A) Gelatine
- (B) Ammonium dichromate
- (C) Polyvinyl alcohol
- (D) Carboxy methyl cellulose
- (E) Answer not known

125. Colour design on colour background can be produced during printing of textile fabrics with help of

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

126. In polyester printing, splintering problem can be avoided by using

- (A) Thickener with low solid content
- (B) Thickener with high solid content
- (C) Thickener with good solubility
- (D) Thickener with good disperseability
- (E) Answer not known

127. Which one of the following is associated with storage in continuous processing range?
- (A) Jigger (B) Winch
~~(C)~~ J-box (D) Jet-dyeing
 (E) Answer not known
128. The pH to be followed in dyeing of wool with levelling acid dye is
- ~~(A)~~ 2 – 3 (B) 4 – 6
 (C) 6 – 7 (D) 7 – 8
 (E) Answer not known
129. Reactive dyes are applied to protein fibres under _____ conditions.
- (A) Strong acid ~~(B)~~ Mild acid
 (C) Strong alkali (D) Slightly alkali
 (E) Answer not known
130. Identity from the following dyes it can be decolourised from their pure solution using activated carbon adsorption technique
- ~~(A)~~ Reactive dye, Basic dye, Azoic dye
 (B) Reactive dye, Vat dye, Azoic dye
 (C) Basic dye, Azoic dye, Disperse dye
 (D) Basic dye, Pigments, Disperse dye
 (E) Answer not known
131. Find the correct matches :
- | | | |
|-----------------------------------|---|---------------------|
| 1. Clip chain mercerizing machine | – | Woven cloth |
| 2. Mercerization | – | Cellulosic fibres |
| 3. Weight Loss during scouring | – | 16% – 19% |
| 4. Cellulose damage | – | Copper number |
| 5. Swelling Index | – | Degree of bleaching |
- (A) 3 and 5 ~~(B)~~ 1, 2, 4
 (C) 1 and 2 (D) 2
 (E) Answer not known

132. Which of the following is correct according to FAST system?

- (A) Fast 1 – Compression meter
- (B) Fast 2 – Extension meter
- (C) Fast 3 – Dimensional stability test
- (D) Fast 4 – Bending meter
- (E) Answer not known

133. Find the wrong matches :

- 1. Air permeability – Volume of air passing through fabric
- 2. Air resistance – Stress of fabric while air is passing through it
- 3. Air porosity – Ratio of volume of fabric to airspace in the fabric
- 4. Cloth cover factor – Directly proportional to air resistance

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

134. Find the wrong matches :

- 1. Plane Abrasion – Rubbing is accompanied by flexing and bending
- 2. Edge Abrasion – Collars and folds
- 3. End point of test – Loss in weight against number of rubs
- 4. Abradent – It never influences the abrasion behaviour of cloth

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

135. A measure of the ability of a textured yarn to recover from stretch is
- (A) Yarn rigidity
 - ~~(B) Crimp rigidity~~
 - (C) Flexural rigidity
 - (D) Bulking rigidity
 - (E) Answer not known
136. In 'twist to break' test, If the twist required to break in one direction is 10 twist and in the opposite direction is 50 twist, then the twist present in the tested yarn is
- ~~(A) 20~~
 - (B) 30
 - (C) 40
 - (D) 60
 - (E) Answer not known
137. For a cotton yarn, the elastic recovery (%) near breaking point, after mechanical conditioning is
- (A) 40
 - (B) 56
 - ~~(C) 80~~
 - (D) 39
 - (E) Answer not known
138. The linear density of polyester cotton (40:60) blended yarn is 'x' tex. The fineness of polyester is y decitex and that of cotton is z micronaire. The limiting irregularity (CV%) due to polyester part is
- (A) $\frac{100}{\sqrt{0.4 \cdot x/y}}$
 - (B) $\frac{100}{\sqrt{x/y}}$
 - ~~(C) $50 \sqrt{\frac{y}{x}}$~~
 - (D) $\frac{50}{\sqrt{y/x}}$
 - (E) Answer not known

139. 50 yarn samples mean and standard deviation are 10 and 1 respectively. Calculate the CV%.
- (A) 10%
 - (B) 12%
 - (C) 14.3%
 - (D) 20%
 - (E) Answer not known
140. Which of the following textile material has lower value of Index of Irregularity?
- (A) Carded sliver
 - (B) Combed sliver
 - (C) Roving
 - (D) Yarn
 - (E) Answer not known
141. Fibre length by number in AFIS expresses
- (A) The length of the individual fibres
 - (B) Upper half mean length
 - (C) 2.5% span length
 - (D) Uniformity ratio
 - (E) Answer not known
142. Which sampling technique is preferred for fibres in parallel condition (or) parallel order?
- (A) Cut squaring method
 - (B) Zoning method
 - (C) Squaring
 - (D) Dry sampling method
 - (E) Answer not known

143. Assertion [A] : Unidirectional yarns are used to produce ballistic panels

Reason [R] : Unidirectional configuration of the fibres allows the energy transferred from the impact of bullet to be distributed along the fibres much faster and efficient.

- (A) Both [A] and [R] are true and [R] is the correct explanation of [A]
- (B) Both [A] and [R] are true but [R] is not the correct explanation of [A]
- (C) [A] is true, but [R] is false
- (D) [A] is false, but [R] is true
- (E) Answer not known

144. Modern textile materials used as crop covers for providing shading and weed suppression is

- (A) Heavier spun laced fleeces
- (B) Heavier spun bonded fleeces
- (C) Lightweight spun laced fleeces
- (D) Lightweight spun bonded fleeces
- (E) Answer not known

145. _____ is currently used for the removal of fly ash in utilities

- (A) Cotton fabric
- (B) Polyester felt fabric
- (C) Woven fibreglass
- (D) Wool fabric
- (E) Answer not known

146. _____ fabric beds are used to grow mushrooms.

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

147. Choose the true statement(s) :

1. Polyurethane foam for seat cover, the density and thickness ranges from 26–45 kg/m³ and 2–20 mm respectively.
2. Most automotive fabrics are flame laminated to foam.
3. Foam acts as a adhesive during flame lamination process.
4. Nylon non-wovens are alternatives to foam.

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

148. In airbags, inflators are primarily made with

- (A) Calcium chloride (B) Calcium azide
(C) Sodium chloride ~~(D)~~ Sodium azide
(E) Answer not known

149. Nearly _____% of strength of automobile tyre comes from tyre cord fabric used in the tyre.

- (A) 25 (B) 50
~~(C)~~ 75 (D) 100
(E) Answer not known

150. Sewing threads used for airbag fabrics

- (A) Cotton ~~(B)~~ Polyester
(C) Viscose rayon (D) Acrylic
(E) Answer not known

151. In automotive applications, _____ is mostly preferred for use in seat cover slit sheet.

- ~~(A)~~ Spun bonded nylon (B) Needled polyester
(C) Dry-laid polyester (D) Needled polypropylene
(E) Answer not known

152. Specify the valid relationship from the following

- (A) Yarn Diameter $\propto \sqrt{N_e \text{ Count}}$
- ~~(B)~~ Yarn Diameter $\propto \sqrt{T_{EX} \text{ Count}}$
- (C) Yarn Diameter $\propto \frac{1}{\sqrt{N_e \text{ Count}}}$
- (D) Yarn Diameter $\propto \frac{1}{\sqrt{T_{EX} \text{ Count}}}$
- (E) Answer not known

153. Choose the incorrect statement with respect to ring spun yarn

- (A) At the periphery of yarn, the fibres have lesser helical angle (with respect to axis of yarn)
- (B) Ring yarn has higher tensile strength, but not so resistant to abrasion
- (C) Ring yarn has sheath-twist nature and the fibres are less tightly wound towards the core
- ~~(D)~~ Outer layers of yarn tend to take axial force and inner layers tend to take radial forces upon loading
- (E) Answer not known

154. Fibre characteristics influencing ring yarn characteristics are given in the order of more important to less important. Select the correct sequence

- (A) Strength, fineness, length / length uniformity
- (B) Strength, length / length uniformity, fineness
- ~~(C)~~ Length / length uniformity, strength, fineness
- (D) Fineness, Strength, Length / length uniformity
- (E) Answer not known

155. In the following which one is not a name of nub yarn?

- (A) knop
- (B) knot
- (C) spot
- ~~(D)~~ ratine
- (E) Answer not known

156. The nip to nip setting of front zone is kept _____ than the back zone in the draw frame. The nip to nip setting of front and back zones of breaker drawframe is kept _____ than that kept in the finisher drawframe.

- (A) less, higher (B) higher, higher
~~(C)~~ less, less (D) higher, less
 (E) Answer not known

157. While twisting filament yarn, the length reduces from 100 cm to 98 cm. The surface angle of twist (α) is

- (A) $\sec^{-1}\left(\frac{98}{102}\right)$ ~~(B)~~ $\cos^{-1}\left(\frac{98}{102}\right)$
 (C) $\cos^{-1}\left(\frac{102}{98}\right)$ (D) $\tan^{-1}\left(\frac{102}{98}\right)$
 (E) Answer not known

158. Match the components with function

- | | |
|---------------|--------------------------------|
| (a) Traveller | 1. Fibre control |
| (b) Spindle | 2. Linear density of sliver |
| (c) Apron | 3. Speed higher than traveller |
| (d) Spacer | 4. Eccentricity |
| | 5. Balloon Tension |
| | 6. Negative drive |

- | | (a) | (b) | (c) | (d) |
|----------------|------------------|-----|-----|-----|
| (A) | 5 | 3 | 2 | 4 |
| (B) | 6 | 4 | 5 | 2 |
| (C) | 6 | 3 | 1 | 2 |
| (D) | 5 | 3 | 6 | 1 |
| (E) | Answer not known | | | |

159. Separating to the level of individual fibres is mainly carried out in
- (A) intensive cleaning machine of blow room
 - ~~(B)~~ carding machine
 - (C) coarse cleaning machine of blow room
 - (D) comber machine
 - (E) Answer not known
160. The needle density of top comb of comber lies in the range of _____ needles per cm.
- (A) 5 - 12
 - ~~(B)~~ 23 - 32
 - (C) 13 - 22
 - (D) 33 - 42
 - (E) Answer not known
161. Running-in time of bale opener with respect to scutcher, when the blow room line has blending machine, is about
- (A) 60%
 - ~~(B)~~ 75%
 - (C) 90%
 - (D) 100%
 - (E) Answer not known
162. Neps/g of raw cotton fed to the blow room is 100. The neps increment during blow room process is 60%. The neps removal efficiency of card is 80%. The neps/g of card shiver is
- (A) 8
 - ~~(B)~~ 32
 - (C) 80
 - (D) 128
 - (E) Answer not known
163. In needling, finer fibres lead to _____ of needled felt
- ~~(A)~~ Lower air permeability
 - (B) Higher air permeability
 - (C) Higher felt thickness
 - (D) Better dimensional stability
 - (E) Answer not known

164. In impingement bonding (air jetting) system, the heat transfer coefficient ratio approach is used to produce pile type of fabrics

(A) 1 : 3

(B) 2 : 3

~~(C)~~ 3 : 1

(D) 3 : 2

(E) Answer not known

165. Calculation of through put per nozzle (m) in spun bonding is by

[V – Volume flow, cm³/min

ρ_p – Polymer density, g/cm³]

(A) $m = \frac{V \cdot 0.785}{\rho_p}$

~~(B)~~ $m = V \cdot \rho_p \cdot 0.785$

(C) $m = V^2 \cdot \rho_p \cdot 0.785$

(D) $m = \frac{\rho_p \cdot 0.785}{V}$

(E) Answer not known

166. The bonding system where binder is applied in predetermined areas to maintain water absorption and permeability characteristics of produced drylaid webs.

(A) Foam

~~(B)~~ Print

(C) Saturation

(D) Spray

(E) Answer not known

167. Physical entanglement between fibres is based on

(i) Friction

(ii) Tenacity

(iii) Cohesion

(A) (i) and (ii) only

(B) (ii) and (iii) only

~~(C)~~ (i) and (iii) only

(D) (i) only

(E) Answer not known

168. Identify the most suitable needle from the given list for utilizing v-bed flat bed knitting machine
- (A) Latch needles
 - (B) Spring bearded needles
 - (C) Compound needles
 - (D) Both spring bearded and compound needles
 - (E) Answer not known
169. The approximate speed of the Raschel warp knitting machine is
- (A) 600 cycles per minute
 - (B) 1200 cycles per minute
 - (C) 1500 cycles per minute
 - (D) 1800 cycles per minute
 - (E) Answer not known
170. _____ is the technique of forming part course using a yarn of any particular colour, material or fineness.
- (A) Loop transfer
 - (B) Laying-in
 - (C) Plating
 - (D) Intarsia
 - (E) Answer not known
171. _____ offers the possibility of introducing fancy and unusual yarns whose physical properties render them difficult to knit into intermeshed loops.
- (A) Laying-in
 - (B) Plating
 - (C) Loop transfer
 - (D) Racking
 - (E) Answer not known

172. The BOD values will be higher for _____ effluent.

- (A) Dyeing (B) Printing
~~(C) Desizing~~ (D) Bleaching
(E) Answer not known

173. The usage of acetic acid in dyeing can be replaced with the following agent to control the BOD value

- (A) Magnesium Chloride (B) Hydrochloric acid
(C) Sulphuric acid ~~(D) Ammonium Sulphate~~
(E) Answer not known

174. Match the following :

Fibre		BOD of scouring effluent
(a) Nylon	1.	2190
(b) Acrylic	2.	600
(c) Polyester	3.	1360

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

175. The untreated effluent is analysed to determine BOD. Dilution made is 0.5% . Do on the initial day and after 5 days incubation are 7.6 and 0.3 mg/l respectively. Calculate the BOD of the effluent

- (A) 730 (B) 2920
~~(C) 1460~~ (D) 2190
(E) Answer not known

176. Identify suitable SPF range for ensuring excellent UV protection of textile material.
- (A) 5 – 10 (B) 15 – 20
(C) 25 – 35 ~~(D) > 40~~
(E) Answer not known
177. Antimicrobial finish that control the growth and spread of microbes is known as
- (A) Bio film (B) Anti oxidant
~~(C) Biostats~~ (D) Microbiome
(E) Answer not known
178. Chitosan based antimicrobial treatment provides the advantages on textile materials are
- (i) High moisture absorbency
(ii) Wound healing
(iii) Flame retardency
(iv) Bio degradability
- (A) (i) and (ii) is correct
(B) (i), (ii) and (iii) correct
~~(C) (i), (ii), (iv) correct~~
(D) (ii), (iii), (iv) correct
(E) Answer not known
179. Test method to analyze the degree of soil redeposition on the fabric during laundering
- (A) AATCC 51 ~~(B) AATCC 151~~
(C) AATCC 551 (D) AATCC 351
(E) Answer not known

180. _____ is the process used to produce preshrink wool fabric.
- (A) Fulling (B) Crabbing
(C) Tentering (D) Decating
(E) Answer not known
181. The number of engraved lines present on the schereiner calendaring roller is
- (A) 5 – 20 lines / cm (B) 5 – 20 lines / inch
(C) 5 – 20 lines / mm (D) 5 – 20 lines / ft
(E) Answer not known
182. In _____, large shipments are not over inspected, small shipments are not under inspected and the risks of making a wrong decision are controllable.
- (A) Quota sampling (B) Spot checking
(C) Arbitrary sampling (D) Statistical sampling
(E) Answer not known
183. _____ is designed to uncover deficiencies in workmanship as well as equipment malfunction.
- (A) Fabric inspection
(B) Trims and Accessories inspection
(C) In process inspection
(D) Final inspection
(E) Answer not known

184. _____ machines sew a number of stitches across the point to be reinforced and then sew covering stitches over and at right angle to the first stitches.

- (A) Button sew
- (B) Over lock
- ~~(C)~~ Bar tack
- (D) Label sewers
- (E) Answer not known

185. _____ knife is used when a higher standard of cutting accuracy is required for multiple pieces of cutting.

- ~~(A)~~ Band
- (B) Straight
- (C) Round
- (D) Hand shear
- (E) Answer not known

186. A laser produces a beam of light that can be focused into a very small spot of

- ~~(A)~~ 0.25 mm
- (B) 2.5 mm
- (C) 0.25 cm
- (D) 2.5 cm
- (E) Answer not known

187. Needle feeding system combined with drop feeding is known as

- (A) Unison feed system
- ~~(B)~~ Compound feed system
- (C) Differential feed system
- (D) Combined feed system
- (E) Answer not known

188. Stitch type used for button sewing, button hole making and hemming is

- (A) Class 200 – hand stitch
- (B) Class 400 – multithread chain stitch
- ~~(C) Class 100 – chain stitch~~
- (D) Class 300 – lock stitch
- (E) Answer not known

189. Match the following :

- | | |
|----------------------|---|
| (a) Spools | 1. Parallel tubes - with a flange at bottom |
| (b) Vicones | 2. Centreless packages |
| (c) Cocoons | 3. Double flanged bobbin |
| (d) Prewound bobbins | 4. Precision wound package |

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

190. Match the following :

- | Part – I | | Part – II | |
|-------------|--|-------------------------|--|
| (a) Class 3 | | 1. Decorative stitching | |
| (b) Class 5 | | 2. Bound seam | |
| (c) Class 6 | | 3. Superimposed seam | |
| (d) Class 1 | | 4. Edge neatening | |

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

191. Identify from the following technique consumes less energy.

- (A) Counter flow principle
- (B) J-box bleaching
- (C) Solvent scouring
- ~~(D)~~ Jigger bleaching
- (E) Answer not known

192. Which one of the following statement is incorrect in the context of efficient consumption of energy in wet processing industry?

- ~~(A)~~ Insulation of steam lines with high heat conductive layers
- (B) Provision of pressure reducing valves
- (C) Introducing water separators in steam lines
- (D) Supply of steam at correct pressure
- (E) Answer not known

193. Find the correct statements :

1. Water consumption is largest for cotton.
2. Counter – current principles of washing reduces the water consumption.
3. Direct steam injection in machine process increases the water consumption.
4. Combined processes of fabric treatment is not reducing energy conservation.

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

194. The method denotes step by step (or) continuous improvement in textile industry is
- (A) Brain storming
 - (B) Pareto diagram
 - ~~(C) Kaizen~~
 - (D) Ishikawa diagram
 - (E) Answer not known
195. The information system (IS) that has been designed with the divisions of pricing, selling policy, logistics and research for the inflow of sales revenue to firm's existence.
- (A) Financial [FIS]
 - (B) Management [MIS]
 - ~~(C) Marketing [MKIS]~~
 - (D) Material [MTIS]
 - (E) Answer not known
196. PDCA cycle of a Total Quality Management concept is
- (A) Project, Do, Check, Assurance
 - (B) Plan, Demand, Compete, Act, React
 - (C) Prioritise, Develop, Co-operate, Achieve
 - ~~(D) Plan, Do, Check, Act, Repeat~~
 - (E) Answer not known

197. The current ratio is 2.0. The current asset is Rs. 20 lakhs. The net working capital is
- (A) 20 lakhs
 (B) ~~10 lakhs~~
 (C) 40 lakhs
 (D) 5 lakhs
 (E) Answer not known
198. The direct material cost for a product is Rs. 40, direct labour cost is twice as direct expenses. If prime cost is Rs. 70, determine the direct labour cost.
- (A) Rs. 36.7
 (B) ~~Rs. 20~~
 (C) Rs. 13.3
 (D) Rs. 10
 (E) Answer not known
199. Choose the type of market classification that discusses about the perfect and imperfect market in the business
- (A) On the basis of regulation
 (B) On geographical basis
 (C) ~~On economic basis~~
 (D) On time basis
 (E) Answer not known
200. Which of the following is not the objective of work measurement?
- (A) Effective labour control
 (B) Determines the time required to do a job
 (C) Basis for fair incentive schemes
 (D) ~~Less fatigue to operators~~
 (E) Answer not known

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