

TEST - 2015

TX	COURSE	DAY : SUNDAY
	TEXTILE TECHNOLOGY	TIME : 10.00 A.M. TO 1.00 P.M.

MAXIMUM MARKS	TOTAL DURATION	MAXIMUM TIME FOR ANSWERING
180	200 MINUTES	180 MINUTES

MENTION YOUR DIPLOMA CET NUMBER					QUESTION BOOKLET DETAILS	
					VERSION CODE	SERIAL NUMBER
					A - 3	1 5 0 1 1 1

DOs :

1. Check whether the Diploma CET No. has been entered and shaded in the respective circles on the OMR answer sheet.
2. This Question Booklet is issued to you by the invigilator after the **2nd Bell i.e., after 09.50 a.m.**
3. The Serial Number of this question booklet should be entered on the OMR answer sheet and the respective circles should also be shaded completely.
4. The Version Code of this question booklet should be entered on the OMR answer sheet and the respective circles should also be shaded completely.
5. compulsorily sign at the bottom portion of the OMR answer sheet in the space provided.

DON'Ts:

1. **THE TIMING AND MARKS PRINTED ON THE OMR ANSWER SHEET SHOULD NOT BE DAMAGED / MUTILATED / SPOILED.**
2. **The 3rd Bell rings at 10.00 a.m., till then;**
 - Do not remove the paper seal of this question booklet.
 - Do not look inside this question booklet.
 - Do not start answering on the OMR answer sheet.

IMPORTANT INSTRUCTIONS TO CANDIDATES

1. This question booklet contains 180 (items) questions and each question will have one statement and four answers. (Four different options / responses.)
2. After the **3rd Bell is rung at 10.00 a.m.** remove the paper seal of this question booklet and check that this booklet does not have any unprinted or torn or missing pages or items etc., if so, get it replaced by a complete test booklet. Read each item and start answering on the OMR answer sheet.
3. During the subsequent 180 minutes:
 - Read each question (item) carefully
 - Choose one correct answer from out of the four available responses (options / choices) given under each question / item. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose only one response for each item.
 - **Completed darken / shade the relevant circle with a BLUE OR BLACK INK BALL POINT PEN against the question number on the OMR answer sheet.**

Correct Method of shading the circle on the OMR answer sheet is as shown below:



4. Use the space provided on each page of the question booklet for Rough Work. Do not use the OMR answer sheet for the same
5. After the **last Bells is rung at 1.00 p.m.** stop marking on the OMR answer sheet and affix your left hand thumb **impression** on the OMR answer sheet as per the instructions.
6. Hand over the **OMR ANSWER SHEET** to the room invigilator as it is.
7. After separating the top sheet, the invigilator will return the bottom sheet replica (Candidate's copy) to you to carry home for self-evaluation.
8. Preserve the replica of the OMR answer sheet for a minimum period of **ONE year**.

PART - A
APPLIED SCIENCE

1. Absorption co-efficient of sound wave is given by _____. Where E_m is energy absorbed by the given medium E_{ow} is the energy absorbed by open window.
1. $a = \frac{E_m}{E_{ow}}$ 2. $a = \frac{E_{ow}}{E_m}$ 3. $a = E_m \times E_{ow}$ 4. $a = E_m + E_{ow}$
2. The rich quality of a musical note depends on
1. Fundamental frequency 2. Loudness
3. Larger number of over tones 4. Pitch
3. Waxing and waning are the characteristics of
1. Periodic motion 2. Oscillations 3. Beats 4. Frequency
4. Velocity of sound in air varies
1. Inversely as the square root of the density of the medium
2. Directly as the square root of the density of the medium
3. Directly as the density of medium
4. Inversely as the density of medium
5. The vibrations of a body of decreasing amplitude are called
1. Undamped free vibrations 2. Damped free vibrations
3. Resonant vibrations 4. Forced vibrations
6. Another name for field emission is
1. Cold cathode emission 2. Thermionic emission
3. Photoelectric emission 4. Secondary emission
7. In case of photoelectric emission, the rate of emission of electron is
1. Independent of frequency of radiation
2. Dependent on frequency of radiation
3. Dependent on wavelength of incident radiation
4. Independent of intensity of radiation

Space For Rough Work

8. Emission of radiation from radioactive element is
1. Slow
 2. Fast
 3. Spontaneous
 4. Very slow
9. In the spectrum of scattered light the lines corresponding to wavelength greater than that of incident light are called
1. Stokes lines
 2. Antistokes lines
 3. Fluorescent lines
 4. Incident lines
10. Resolving power of telescope is given by
1. $\frac{d}{1.22\lambda}$
 2. $\frac{1.22\lambda}{d}$
 3. $\frac{1.22d}{\lambda}$
 4. $\frac{\lambda}{1.22d}$
11. To observe diffraction pattern the obstacle should be
1. Very big
 2. Dark
 3. Absent
 4. Comparable with the wavelength of light
12. When double refraction occurs, extraordinary ray and ordinary rays will have vibrations in the planes _____ to one another
1. Parallel
 2. Independent
 3. Perpendicular
 4. At 45°
13. Maxwell's electromagnetic theory could explain
1. Photo electric effect
 2. Interference of light
 3. Compton effect
 4. Black body radiation
14. The contrast between bright and dark bands of an interference pattern is
1. Low
 2. High
 3. No change
 4. Gradually decreases
15. A non-electrolyte solution is
1. Sugar solution
 2. Salt solution
 3. Water
 4. Copper sulphate solution

Space For Rough Work

16. In alkalies the concentration of OH^- ions is
1. More than $10^{-7}g$ ions / litre
 2. Less than $10^{-7}g$ ions / litre
 3. Equal to $10^{-7}g$ ions / litre
 4. More than 10^7g ions / litre
17. An example of derived unit is
1. Meter
 2. Second
 3. Netwon
 4. Candela
18. The prefix used for 10^{-15} is
1. Femto
 2. Pico
 3. Peta
 4. Nano
19. An example of dimensionless constant is
1. Strain
 2. Efficiency
 3. Force
 4. Pi
20. A main scale is divided into half mm and having a Vernier containing 10 divisions has a least count of _____ cm.
1. 0.05
 2. 0.005
 3. 0.02
 4. 0.025
21. According to Newton's second law of motion $F = Kma$. The value of K is
1. 0.1
 2. 0
 3. 10
 4. 1
22. The velocity of a freely falling body is maximum
1. At the beginning
 2. Just before it touches ground
 3. Exactly half way
 4. After it touches ground
23. Wet clothes are dried in washing machine by the property of
1. Inertia of rest
 2. Inertia of direction
 3. Inertia of motion
 4. Inertia of time
24. A force of $1.2 \times 10^{-2} N$ acts for 3 seconds on a body of mass 0.04kg at rest. The velocity gained by the body is
1. 0.9 m/s
 2. 9 m/s
 3. 0.09 m/s
 4. 9.2 m/s
25. An example of vector quantity is
1. Volume
 2. Energy
 3. Density
 4. Force

Space For Rough Work

26. Handle of the door is fixed away from the end where it is fixed with hinges to
1. Increase the moment of force
 2. Decrease the moment of force
 3. Keep the door firm
 4. Lock it easily
27. Resultant of two equal forces perpendicular to each other acts at an angle _____ to first force
1. 90°
 2. 180°
 3. 30°
 4. 45°
28. The resultant of two forces acting on a body cannot be
1. Greater than first force
 2. Zero
 3. Lesser than first force
 4. Lesser than the difference between two forces
29. Towing of a boat by two forces is an illustration of
1. Lami's theorem
 2. Law of triangle of forces
 3. Law of parallelogram of forces
 4. Law of polygon of forces
30. Shock absorber is an example for
1. Compressive stress
 2. Tensile stress
 3. Shear stress
 4. Shear strain
31. Factor of safety of a structure is
1. Within 2
 2. Equal to zero
 3. Vary between 5 and 10
 4. More than 10
32. In case of liquids as the temperature increases, the viscosity of liquid decreases due to
1. Increase in the rate of diffusion of gases
 2. Decrease in the rate of diffusion of gases
 3. Increase in the potential energy of molecules
 4. Increase in the kinetic energy of molecules

Space For Rough Work

33. One Pascal is equal to
- 10 dynes/cm²
 - 1 dyne / cm²
 - 100 dynes / cm²
 - 0.1 dyne / cm²
34. To calm down turbulent sea, sailors use oil to
- Decrease surface tension
 - Increase surface tension
 - Decrease viscosity
 - Increase cohesive force
35. The thrust on the bottom of the container having a base area of 20 m² filled with water to a height of 3 m is _____ (given $g = 10 \text{ m/s}^2$)
- $6 \times 10^5 \text{ N}$
 - $6 \times 10^4 \text{ N}$
 - $6 \times 10^3 \text{ N}$
 - $6 \times 10^2 \text{ N}$
36. Amount of heat required to raise the temperature of 1 kg of water through 1°C is
- One calorie
 - One joule
 - One kilo-calorie
 - One kilojoule
37. Absolute scale of temperature has its zero at
- 0°C
 - 100°C
 - 273°C
 - 273°C
38. In case of an ideal gas, the value of pressure or volume co-efficient is
- $\frac{1}{273}$
 - $-\frac{1}{273}$
 - 273
 - 273
39. The distance travelled by the disturbance per unit time in a given direction is
- Wave amplitude
 - Wave velocity
 - Wave frequency
 - Wavelength
40. The speed of the transverse wave along the stretched string is given by
- $V = \sqrt{\frac{T}{m}}$
 - $V = \sqrt{\frac{m}{T}}$
 - $V = \sqrt{\frac{1}{T}}$
 - $V = \frac{\sqrt{m}}{T}$

Space For Rough Work

PART - B
APPLIED MATHEMATICS

41. The value of $\lim_{x \rightarrow -2} \frac{x+2}{x^5+32}$ is

1. $\frac{1}{80}$

2. 80

3. $\frac{-1}{80}$

4. -80

42. The value of $\lim_{x \rightarrow 0} \frac{2x - \tan 3x}{\sin 2x + 3x^2}$ is

1. $\frac{-1}{5}$

2. 0

3. $\frac{1}{2}$

4. $-\frac{1}{2}$

43. If $y = e^{x \log x}$, then $\frac{dy}{dx}$ at $x=1$ is

1. e^x

2. e

3. 1

4. 0

44. If $y = \tan^{-1} \sqrt{\frac{1+\cos x}{1-\cos x}}$, then $\frac{dy}{dx}$ is

1. 2

2. -2

3. $\frac{-1}{2}$

4. $\frac{1}{2}$

45. If $\sqrt{x^3} + \sqrt{y^3} = \sqrt{a^3}$, then $\frac{dy}{dx}$ is

1. $\sqrt{\frac{x}{y}}$

2. $-\sqrt{\frac{x}{y}}$

3. $\sqrt{\frac{y}{x}}$

4. $-\sqrt{\frac{y}{x}}$

Space For Rough Work

46. The second derivative of $y = \log(\sec x - \tan x)$ is

1. $-\sec x \tan x$ 2. $\sec x \tan x$ 3. $-\sec x$ 4. $\sec x$

47. Water flows into the cylindrical tank of radius 7mt at the rate of 294 cubic mt/sec, then the rate of height of water rising in the tank is

1. $\frac{\pi}{6} \text{ mt/sec}$ 2. $\frac{6}{\pi} \text{ mt/sec}$
3. 14406 mt/sec 4. $\frac{21}{\pi} \text{ mt/sec}$

48. The maximum value of the function $y = x + \frac{1}{x}$ is

1. 0 2. 2 3. 1 4. -2

49. The value of $\int \tan^2 x \, dx$ is

1. $\tan x - x + c$ 2. $x - \tan x + c$ 3. $(\sec^2 x)^2 + c$ 4. $-\cot x - x + c$

50. The value of $\int \frac{\cos x}{1 + \sin x} \, dx$ is

1. $\log(\sec^2 x + \sec x \tan x) + c$ 2. $\log(\sin x) + c$
3. $\log(1 + \sin x) + c$ 4. $\frac{(1 + \sin x)^2}{2} + c$

51. $\int \sin^2 x \sin 2x \, dx$ is

1. $\frac{\sin^2 x}{2} + c$ 2. $\frac{\sin^4 x}{2} + c$ 3. $\sin^2 x + c$ 4. $\frac{-\sin^4 x}{2} + c$

Space For Rough Work

52. $\int_{-1}^1 (2x+1)(5-x) dx$ is

1. 10 2. $\frac{26}{3}$ 3. $\frac{-26}{3}$ 4. $\frac{11}{3}$

53. $\int_0^{\pi/4} \tan^2 x \sec^2 x dx$ is

1. $\frac{1}{3}$ 2. $\frac{4}{3}$ 3. $\frac{1}{2}$ 4. $\frac{-1}{3}$

54. The RMS value of $y^2 = x^2 - 2x$ over the interval $[1, 3]$ is

1. $\sqrt{\frac{5}{3}}$ 2. $\sqrt{\frac{2}{3}}$ 3. $\frac{1}{3}$ 4. $\frac{1}{\sqrt{3}}$

55. The differential equation of $y^3 = 5ax$ by eliminating arbitrary constant a is

1. $\frac{dy}{dx} - \frac{y}{3x} = 0$ 2. $\frac{dy}{dx} + \frac{y}{3x} = 0$
 3. $\frac{dy}{dx} - \frac{3y}{x} = 0$ 4. $\frac{dy}{dx} - \frac{5y}{3x} = 0$

56. The integrating factor of the differential equation $x \frac{dy}{dx} - (1-x)y = x^3$ is

1. $\frac{e^x}{x}$ 2. xe^x 3. $e^{\frac{x^2-2x}{2}}$ 4. $e^{\frac{2x-x^2}{2}}$

Space For Rough Work

57. If $\begin{vmatrix} 2x+1 & -5x \\ 1 & 3 \end{vmatrix} = 0$, then x is

1. $\frac{3}{11}$

2. $\frac{-3}{11}$

3. $\frac{11}{3}$

4. $-\frac{11}{3}$

58. For the simultaneous linear equations $2x + y + z = 1$, $x + y + 2z = 0$ and $3x + 2y - z = 2$, the value of Δx is

1. 3

2. -11

3. -7

4. -3

59. If $A = \begin{bmatrix} 2 & 3 \\ 5 & 4 \end{bmatrix}$, $B = \begin{bmatrix} -1 & 7 \\ -4 & 1 \end{bmatrix}$ then $(A+B)^T$ is

1. $\begin{bmatrix} 1 & 1 \\ 10 & 5 \end{bmatrix}$

2. $\begin{bmatrix} 1 & 10 \\ 1 & 5 \end{bmatrix}$

3. $\begin{bmatrix} -1 & 10 \\ -1 & 5 \end{bmatrix}$

4. $\begin{bmatrix} -1 & -1 \\ 10 & 5 \end{bmatrix}$

60. If $A = \begin{bmatrix} 1 & -3 \\ -5 & 7 \end{bmatrix}$, then $\text{adj } A$ is

1. $\begin{bmatrix} 1 & -5 \\ -3 & 7 \end{bmatrix}$

2. $\begin{bmatrix} 7 & -5 \\ -3 & 1 \end{bmatrix}$

3. $\begin{bmatrix} -1 & -5 \\ -3 & -7 \end{bmatrix}$

4. $\begin{bmatrix} 7 & 3 \\ 5 & 1 \end{bmatrix}$

61. The cofactor of O in $A = \begin{bmatrix} 3 & -2 & 5 \\ 1 & 6 & 0 \\ 2 & 7 & -4 \end{bmatrix}$ is

1. -25

2. 25

3. -17

4. 0

Space For Rough Work

62. If $(\sqrt{3}+1)^3 = 10+6\sqrt{3}$, then the value of $(\sqrt{3}+1)^3 - (\sqrt{3}-1)^3$ is

1. $12\sqrt{3}$ 2. 0 3. 20 4. $20+\sqrt{3}$

63. The middle term in the expansion of $\left(x^3 + \frac{1}{x^2}\right)^6$

1. $10x^3$ 2. $20x^3$ 3. $\frac{20}{x^3}$ 4. 20

64. If $\vec{a} = i + 3j - 2k$ and $\vec{b} = 2i - j + 3k$, then $\vec{a} \cdot \vec{b}$ is

1. -5 2. 11 3. 7 4. -7

65. The work done by the force $2i - j + 6k$ when it displaces the particle from (5, 3, -2) to (7, -4, 8) is

1. 72 2. 48 3. -71 4. 71

66. The sine of the angle between the vectors $\vec{a} = i + j + k$ and $\vec{b} = 2i - 3j - 4k$ is

1. $\sqrt{\frac{62}{87}}$ 2. $\sqrt{\frac{87}{62}}$ 3. $\frac{-5}{\sqrt{87}}$ 4. $\sqrt{\frac{10}{63}}$

67. If $\cos \theta = \frac{5}{13}$ and θ is acute angle, then the value of $3 \cos \theta - 2 \sin \theta$ is

1. $\frac{9}{13}$ 2. 3 3. $\frac{-9}{13}$ 4. -3

Space For Rough Work

68. If $x \sin 30^\circ - \sec 30^\circ \tan 30^\circ = \tan^2 60^\circ$, then the value of x is

1. $\frac{22}{3}$ 2. $\frac{-22}{3}$ 3. $\frac{11}{6}$ 4. $\frac{3}{22}$

69. The value of $\sin 225^\circ + \cos(-135^\circ)$ is

1. $\sqrt{2}$ 2. $-\sqrt{2}$ 3. $\frac{1}{\sqrt{2}}$ 4. $\frac{-1}{\sqrt{2}}$

70. The simplified value of $\frac{\sin(180^\circ - A) \cot(90^\circ - A) \cos(360^\circ - A)}{\tan(180^\circ + A) \tan(90^\circ + A) \sin(-A)}$ is

1. $\sin A$ 2. $-\sin A$ 3. 1 4. $\operatorname{cosec} A$

71. The simplified value of $\frac{\sin 2A}{1 + \cos 2A}$ is

1. $2 \tan A$ 2. $\sin A$ 3. $\cot A$ 4. $\tan A$

72. If $\tan A = \frac{3}{4}$ and $\tan B = \frac{1}{7}$, then the value of $(A+B)$ is

1. $\frac{\pi}{6}$ 2. $\frac{25}{23}$ 3. $\frac{\pi}{4}$ 4. $\frac{23}{25}$

73. The value of $\cos 20^\circ + \cos 100^\circ + \cos 140^\circ$ is

1. 0 2. $\cos 50^\circ$ 3. $\frac{1}{2}$ 4. $\sin 50^\circ$

Space For Rough Work

74. The value of $\cos^{-1}[\tan 135^\circ]$ is
1. 0°
 2. 180°
 3. 45°
 4. 90°
75. The centroid of the triangle formed by the vertices $(-10, 6)$, $(2, -2)$ and $(2, 5)$ is
1. $(-2, 3)$
 2. $(2, 3)$
 3. $\left(-3, \frac{9}{2}\right)$
 4. $(-6, 9)$
76. A point $(-4, 3)$ divides the line AB externally in the ratio of 1 : 2. Given $A(-1, -3)$ then the point B is
1. $(6, -3)$
 2. $(-10, 15)$
 3. $(2, 9)$
 4. $(2, -9)$
77. The area of triangle formed by the point, $(3, -1)$, $(2, 0)$ and $(K, 4)$ is 10 Sq. Units, then the value of K is
1. 12
 2. 7
 3. -22
 4. 22
78. The slope of the line joining the points $(-2, 3)$ and $(4, -6)$ is
1. $\frac{3}{2}$
 2. $\frac{-3}{2}$
 3. $\frac{2}{3}$
 4. $\frac{-2}{3}$
79. The equation of straight line passing through $(4, -1)$ and having equal intercepts is
1. $x + y - 1 = 0$
 2. $x + y - 5 = 0$
 3. $x + y - 3 = 0$
 4. $x + y + 3 = 0$
80. The equation of the line passing through $(5, -2)$ and parallel to the line $3x + 2y + 7 = 0$ is
1. $3x + 2y - 11 = 0$
 2. $3x - 2y + 11 = 0$
 3. $3x - 2y - 19 = 0$
 4. $2x - 3y - 16 = 0$

Space For Rough Work

PART - C
TEXTILE TECHNOLOGY

81. The full form of BOD

 - 1) Biological Oxygen Demand
 - 2) Bacterial Optimum Demand
 - 3) Biochemical Oxygen Demand
 - 4) Biodegradable Oxygen Demand

82. Oldest Singeing process is

 - 1) Gas singeing
 - 2) Roller singeing
 - 3) Plate singeing
 - 4) Macarthy singeing

83. The dimensional stability of cotton material is achieved by

 - 1) Scouring
 - 2) Bleaching
 - 3) Mercerization
 - 4) Dyeing

84. The machine kier is related to

 - 1) Dyeing
 - 2) Mercerization
 - 3) Scouring
 - 4) Printing

85. Optical whitening of fabric is done to

 - 1) Increase the whiteness
 - 2) Decrease whiteness
 - 3) Increase the weight
 - 4) Decrease the weight

86. The formula of Hydrogen peroxide is

 - 1) HO_2
 - 2) HO
 - 3) HO_3
 - 4) H_2O_2

87. The liquor ratio of Winch compared to Zigger is

 - 1) More
 - 2) Less
 - 3) Equal
 - 4) None of these

88. The word Diazotisation related to

 - 1) Sulphur Dyes
 - 2) Acid Dyes
 - 3) Azoic Dyes
 - 4) Disperse Dyes

89. The pH required for Sodium Chloride bleaching is

 - 1) 4
 - 2) 7
 - 3) 10
 - 4) 12

90. Jet dyeing machine is worked on principle of

 - 1) Dye liquor stationary - Fabric moving
 - 2) Dye liquor moving - Fabric stationary
 - 3) Both Dye liquor & Fabric moving
 - 4) Both Dye liquor & Fabric stationary

Space For Rough Work

91. The carbonization process of polyester and cotton blend removes
- 1) Polyester
 - 2) Cotton
 - 3) Both Cotton & Polyester
 - 4) Blend
92. Sueding machine is used to produce
- 1) Mild effect of raising
 - 2) Calendering
 - 3) Anticrease
 - 4) Anti Pilling
93. The process of treating cellulosic fabric with 110° TW sulphuric acid is
- 1) Rot Proofing
 - 2) Mildew Proofing
 - 3) Perchmentising
 - 4) Mercerising
94. Martindale abrasion tester is used to measure
- 1) Bursting Strength
 - 2) Tearing Strength
 - 3) Crease recovery
 - 4) Abrasion resistance
95. The middle value of a series of values arranged in the order of magnitude is
- 1) Mode
 - 2) Mean
 - 3) Median
 - 4) Average
96. Twist per inch is equal to
- 1) $\frac{\sqrt{\text{Count}}}{\text{Twist factor}}$
 - 2) $\frac{\text{Count}}{\text{Twist factor}}$
 - 3) $\frac{\text{Twist factor}}{\sqrt{\text{Count}}}$
 - 4) $\text{Twist factor} \times \sqrt{\text{Count}}$
97. Dye sampling technique is used for
- 1) Wool
 - 2) Cotton
 - 3) Viscose
 - 4) Polyester
98. The tearing strength is measured on
- 1) Uster tester
 - 2) Instron tester
 - 3) Elmondorf tester
 - 4) Lea tester
99. 10 - 100 times the fiber length of periodic variation is called as
- 1) Medium term variation
 - 2) Short term variation
 - 3) Long term variation
 - 4) Very long term variation

Space For Rough Work

100. The measure of stiffness associated with handle is called

- | | |
|---------------------|-----------------------|
| 1) Bending modulus | 2) Flexural rigidity |
| 3) Air permeability | 4) Water permeability |

101. The measure of toughness of the material is known as

- | | | | |
|--------------------|-----------|-----------|-------------------|
| 1) Work of rupture | 2) Stress | 3) Strain | 4) Breaking draft |
|--------------------|-----------|-----------|-------------------|

102. Weight of the water in a material expressed as a percentage of oven dry weight is known as

- | | |
|-------------------------|------------------------|
| 1) Standard pressure | 2) Moisture content |
| 3) Standard temperature | 4) Standard atmosphere |

103. Ballistic tester is used to measure

- | | | | |
|----------------------|-----------------|---------------------|-----------------|
| 1) Bursting strength | 2) Pilling test | 3) Tearing strength | 4) Crease angle |
|----------------------|-----------------|---------------------|-----------------|

104. Formula of cover factor is

- | | | | |
|-------------------------|-------------------------|--------------------------------|--------------------------------|
| 1) $\frac{N}{\sqrt{n}}$ | 2) $\frac{n}{\sqrt{N}}$ | 3) $\frac{\sqrt{M}}{\sqrt{n}}$ | 4) $\frac{\sqrt{n}}{\sqrt{N}}$ |
|-------------------------|-------------------------|--------------------------------|--------------------------------|

105. A ratio of air space to total volume of the fabric expressed as a percentage is known as

- | | | | |
|-------------------|-------------------|---------------------|-----------------|
| 1) Water porosity | 2) Air resistance | 3) Flame resistance | 4) Air porosity |
|-------------------|-------------------|---------------------|-----------------|

106. Drape co-efficient is

- | | | | |
|--------------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 1) $F = \frac{A_s - A_d}{A_D - A_d}$ | 2) $F = \frac{aS - ad}{aD - ad}$ | 3) $F = \frac{Aa - Ad}{Aa - As}$ | 4) $F = \frac{AD - Ad}{Ad - As}$ |
|--------------------------------------|----------------------------------|----------------------------------|----------------------------------|

107. Indirect yar number is

- | | | | |
|--------|-----------|-----------------|-----------------|
| 1) Tex | 2) Denier | 3) Cotton count | 4) Metric count |
|--------|-----------|-----------------|-----------------|

108. What would be the relative closeness of the warp yarns of the two cloths

- | | | | |
|---------------------------|-----------------------------|------------------|------------------|
| (i) 16s : 50 ends / inch. | (ii) 36s : 84 ends / inch.? | | |
| 1) 12.5 and 14.0 | 2) 10.5 and 12.5 | 3) 13.6 and 12.0 | 4) 12.3 and 13.2 |

Space For Rough Work

109. In centre stitch double cloth the function of third series of threads is to _____ the both layers.
 1) Interact 2) Stitch 3) Intermesh 4) Knit
110. Warp rib is derivative of
 1) Plain weave 2) Twill weave 3) Backed weave 4) Mock leno
111. Satin is characterised by
 1) Rough surface 2) Smooth surface 3) Hard surface 4) Matt surface
112. Ordinary honey comb weave is produced by
 1) Skip draft 2) straight draft 3) Pointed draft 4) Satin draft
113. In pigment theory blue is
 1) Primary colour 2) Secondary colour
 3) Tertiary colour 4) Warm colour
114. Move numbers are used in
 1) Plain weave 2) Satin weave
 3) Huck-a- back weave 4) Extra warp
115. Threads interlace in an alternate order in
 1) Plain weave 2) Twill weave 3) Satin weave 4) Honey comb
116. Cotton count X Denier = _____
 1) 7972 2) 5315 3) 5135 4) 5305
117. Twill weave produces
 1) Straight line 2) Vertical line 3) Diagonal line 4) Horizontal line
118. In weft backed cloths wadding threads are introduced in
 1) Weft way 2) Warp way 3) Diagonal way 4) None of these
119. Crepe weaves can be produced by which of the following methods?
 1) Sateen base 2) Reversing base 3) Superimposing base 4) All of these

Space For Rough Work

120. Which of the following is the principal element of machine knitting?
 1) Hooked metal needle 2) Sinker 3) Course 4) Wales
121. Frictionless latch needles are employed in
 1) Open cam system 2) Closed cam system
 3) Straight cam system 4) Vertical cam system
122. The function of the sinker is
 1) Loop formation 2) Holding down 3) Knocking over 4) All of these
123. Double latch hook is used for
 1) Plain Design 2) Purl Design 3) Interlock Design 4) Rib Design
124. In warp knitting loops have
 1) Open structure 2) Closed structure
 3) Round structure 4) Square structure
125. Most circular weft knitting machines have revolving
 1) Cams 2) Needle cylinders 3) Feeders 4) Yarn Packages
126. Which of the following is the simplest unit of knitted structure?
 1) Cam 2) Sinker loop 3) Needle loop 4) Butt
127. A float stitch is composed of
 1) Held loop 2) Float loop 3) Knitted loop 4) All of these
128. PDCA is associated with
 1) J.C. Penny 2) Six sigma 3) AQL 4) Traffic light
129. 'KASUTHI' embroidery is associated with which of the following states?
 1) Delhi 2) Madhya Pradesh 3) Uttar Pradesh 4) Karnataka
130. In traffic light system green colour indicates
 1) No defects 2) 4-defects 3) 2-defects 4) 1-defect

Space For Rough Work

131. Two dimensional grading system is used only for
- 1) Skin tight garments
 - 2) Loose garments
 - 3) Designer wear
 - 4) Haute couture fashions
132. To cut only single or double plies which of the following tools are used?
- 1) Computer controlled knife
 - 2) Straight knife
 - 3) Band knife
 - 4) Hand shears
133. Which of the following stitch is used to join elastics & braids?
- 1) Lock stitch
 - 2) Covering chain stitch
 - 3) Hand stitch
 - 4) Knit stitch
134. Which of the following factors are to be controlled by fusing equipment?
- 1) Temperature
 - 2) Pressure
 - 3) Time
 - 4) All of these
135. 4-Point system is associated with
- 1) Garment Inspection
 - 2) Fabric Inspection
 - 3) Industry Inspection
 - 4) Buyer Inspection
136. Which of the following is a sewing machine aid?
- 1) Label
 - 2) Folder
 - 3) Rivet
 - 4) Braid
137. GSD is
- 1) Global sewing data
 - 2) General state data
 - 3) Geographical state data
 - 4) General sewing data
138. The maximum temperature required in fusing is
- 1) 100°C
 - 2) 120°C
 - 3) 175°C
 - 4) 90°C
139. Which of the following stitch type is very secure?
- 1) Chain
 - 2) Lock
 - 3) Hand Stitch
 - 4) Decorative Stitch

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140. Medulla present in

- 1) Wool 2) Silk 3) Flax 4) Hemp

141. Polyester dissolves in

- 1) Metracresol at 95°C 2) Hydrochloric acid
3) Water 4) None

142. Density of silk is

- 1) 1.52 gm/cc 2) 1.60 gm/cc 3) 1.33 gm/cc 4) 1.1 gm/cc

143. Vegetable fibers are derived from

- 1) Animals 2) Plants 3) Bacteria 4) All of these

144. Gilling process is carried out in

- 1) Cotton spinning 2) Polyester spinning
3) Wool spinning 4) Cotton blends spinning

145. Dogbone cross section is a feature of

- 1) Glass 2) Viscose 3) Acrylic 4) Polypropylene

146. Skutching & Hackling process is carried out for

- 1) Cotton fibers 2) Wool fibers 3) Bast fibers 4) All of these

147. China grass is

- 1) Sisal 2) Flax 3) Ramie 4) Hemp

148. On wetting wool liberates heat. This is known as

- 1) Heat of wetting 2) Heat of swelling 3) Heat of setting 4) Thermal insulation

149. Nomex is

- 1) Natural fibers 2) Regenerated fiber
3) Polynosic fiber 4) Polyamide fiber

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150. Fibroin mainly consists of
 1) Valine 2) Glycine 3) Threonine 4) Arginine
151. Polytetra fluoro ethylene is also known as
 1) Teflon 2) Nylon 3) PVC 4) Orlon
152. Roller card is used for
 1) Cotton 2) Polyester 3) Nylon 4) Wool
153. Traveller speed is always
 1) Higher than spindle speed 2) Lesser than spindle speed
 3) Equal to spindle speed 4) Equal to front roller
154. Speed of 3-bladed beater for coarse cotton is
 1) 850 rpm 2) 1250 rpm 3) 750 rpm 4) 480 rpm
155. Autolevellers are used in
 1) Scutcher 2) Triple opener 3) Draw frame 4) Dawdler
156. The usual count spun on rotar is about
 1) 10^s 2) 40^s 3) 60^s 4) 80^s
157. The speed of high production card is
 1) 50 2) 500 3) 250 4) 400
158. Grinding of carding is
 1) Removing of short fibers 2) Replacing worn out clothing
 3) Clothing the whole surface 4) Sharpening the wire points
159. What is the input of combing
 1) Bale 2) Lap 3) Yarn 4) Sliver lap
160. What process is used after draw frame
 1) Ring frame 2) Simplex 3) Blow room 4) Carding

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161. Sliver and roving count is expressed by
 1) Hank 2) Lea 3) rpm 4) mpm
162. If yarn is regular then CSP is
 1) Lower 2) Higher 3) Coarser 4) None of these
163. Which is the last machine of blow room
 1) Opener 2) Cleaner 3) Mixer 4) Scutcher
164. Step cleaner is placed at
 1) 90° Angle 2) 45° Angle 3) 100° Angle 4) 10° Angle
165. Entrangled mass of fibers are known as
 1) Neps 2) Linters 3) Noil 4) None of these
166. The side weft fork motion is in action
 1) For every pick 2) For every 3 picks
 3) For every alternative picks 4) For every 4 picks
167. In the sulzer projectile loom picking force depends on
 1) Loom speed 2) Torsion bar adjustment
 3) Projectile weight 4) Power of motor
168. Tempels are used to control
 1) Width of cloth in loom 2) Length of cloth in loom
 3) Selvage straightening 4) Tension in the cloth
169. The harness tie is related to
 1) Dobby 2) Jacquard 3) Tappet 4) None of these
170. If 4 ends/dent are drawn in 60^s stock port what is the ends/inch in reed?
 1) 60 2) 240 3) 120 4) 30

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171. The weight of projectile is
1) 500 gms 2) 100 gms 3) 40 gms 4) 20 gms
172. The main source of variation in pick spacing is
1) Sley width 2) Reed space 3) Take up motion 4) Let off motion
173. Confuser system is found in
1) Dornier 2) Sulzer 3) Airjet 4) Box loom
174. Gabler weft insertion system is associated with
1) Rapier loom 2) Hand loom 3) Pit loom 4) Box loom
175. Fast reed is
1) Primary motion 2) Secondary motion
3) Shedding motion 4) Warp protector motion
176. Dobby is
1) Shedding device 2) Picking device
3) Beat up device 4) Let off device
177. 2 or 3 cloths can be woven simultaneously in which of the following looms?
1) Tappet loom 2) Hand loom 3) Projectile loom 4) None of these
178. In which of the following looms nozzels are used?
1) Water jet 2) Box loom 3) Hand loom 4) None of these
179. The ratio of crank shaft speed to bottom shaft in a loom is
1) 2:1 2) 4:3 3) 1:3 4) 3:1
180. The hard water is softened by
1) Zeolite process 2) Scouring process
3) Bleaching process 4) None of these

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SEAL