DIPLOMA - COMMON ENTRANCE TEST-2017

TX	COURSE	DAY : SUNDAY DATE : 02-07-2017
	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 - 1	213042

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 / polythene bag 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 / polythene bag 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.
   - **Completely 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 Bell 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. Handover the **OMR ANSWER SHEET** to the room invigilator as it is.
7. After separating the top sheet (KEA copy), 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. The S.I. unit of Coefficient of Viscosity is

   (A) Poise (B) NSm^{-2}

   (C) $NS^{-1}m^2$ (D) $NS^{-1}m^{-2}$

2. The prefix used for 10^{+9} is

   (A) Mega (B) Tera

   (C) Giga (D) Hecta

3. The physical quantity which has the dimensional formula $[ML^0T^{-2}]$ is

   (A) Force (B) Surface tension

   (C) Viscosity (D) Work

4. The least count of slide callipers is given by

   (A) 1 MSD + 1 VSD (B) 1 MSD × 1 VSD

   (C) 1 MSD – 1 VSD (D) $\frac{1\,MSD}{1\,VSD}$

5. The product of force and time is

   (A) Momentum (B) Moment

   (C) Impulse (D) Acceleration

6. The change in position of a particle in a particular direction is referred to as

   (A) Speed (B) Displacement

   (C) Velocity (D) Acceleration

Space For Rough Work

7. The equation of motion of a body for distance travelled 'S_n' in the 'n^{th}' second is given by

(A) $S_n = u + \frac{a}{2}(2n-1)$ (B) $S_n = u - \frac{a}{2}(2n-1)$

(C) $S_n = u + \frac{a}{2}(2n+1)$ (D) $S_n = u - \frac{a}{2}(2n+1)$

8. A bullet of mass 0.01 kg is fired with a velocity of 960 ms^{-1} from a rifle of mass 3 kg, the velocity of recoil of rifle is

(A) $-320\ ms^{-1}$ (B) $-0.32\ ms^{-1}$

(C) $-3.2\ ms^{-1}$ (D) $-32\ ms^{-1}$

9. One of the following is not a scalar quantity :

(A) Mass (B) Density

(C) Force (D) Speed

10. If a body fixed about a point rotates in clockwise direction, the moment of force is measured as

(A) Positive (B) Negative

(C) Zero (D) Equal

11. The resultant magnitude of two forces P and Q acting in same line and in same direction is

(A) $P - Q$ (B) $P + Q$

(C) $Q - P$ (D) $\frac{P}{Q}$

Space For Rough Work

12. The resultant magnitude of two forces 6 N and 8 N acting at right angles to each other is

(A) 100 N (B) 10 N

(C) 48 N (D) 14 N

13. The value of resultant magnitude of two forces acting at a point is maximum, when the angle between the two forces is

(A) 0° (B) 90°

(C) 180° (D) 45°

14. Rise of liquid in a capillary tube is due to

(A) Energy (B) Viscosity

(C) Surface tension (D) Pressure

15. The ratio of volume stress to volume strain is called

(A) Bulk modulus (B) Young's modulus

(C) Rigidity modulus (D) Poisson's ratio

16. The reciprocal of bulk modulus of elasticity is called

(A) Compressibility (B) Rigidity

(C) Plasticity (D) Modulus of elasticity

17. The force of cohesion is maximum in

(A) Solids (B) Gases

(C) Liquids (D) Plasma

Space For Rough Work

18. The value of surface tension is 80 dyne/cm. What will be its value in Nm^{-1} ?

(A) $8\times10^{2}\ Nm^{-1}$ (B) $80\ Nm^{-1}$

(C) $8\times10^{-2}\ Nm^{-1}$ (D) $8\times10^{3}\ Nm^{-1}$

19. Pressure at the bottom of a container having base area of $10\ m^2$ filled with water to a height of 10 m is

(A) 9.8×10^{4} Pa (B) 980×10^{4} Pa

(C) 9.8×10^{-4} Pa (D) 980×10^{-4} Pa

20. 100 °C when expressed in absolute scale is

(A) 100 K (B) 0 K

(C) 273 K (D) 373 K

21. Gas law which gives the relation between pressure and volume changes is

(A) Boyle's law (B) Charles' law

(C) Gay-Lussac's law (D) Hooke's law

22. Amount of heat required to raise the temperature of one gram of water through 1 °C is

(A) Heat capacity (B) Conductivity

(C) Calorie (D) Joule

23. An example of longitudinal wave is

(A) Sound waves (B) Waves on the surface of water

(C) Light waves (D) Electromagnetic waves

Space For Rough Work

24. The relation between velocity of sound v, and absolute temperature T is

(A) $v \propto T$ (B) $v \propto \frac{1}{T}$

(C) $v \propto \sqrt{T}$ (D) $v \propto T^2$

25. The distance between a node and the next antinode in a stationary wave is equal to

(A) one wavelength (B) half wavelength

(C) twice wavelength (D) one fourth wavelength

26. Damage caused by marching military columns to the suspension bridge is due to

(A) Echo (B) Resonance

(C) Beats (D) Interference

27. During forced vibrations, if the forced frequency is F_1 and natural frequency is F_2, the body resonates if

(A) $F_1 > F_2$ (B) $F_2 > F_1$

(C) $F_1 = 2.5\, F_2$ (D) $F_1 = F_2$

28. The fundamental frequency of transverse vibrations of the stretched string is inversely proportional to

(A) tension (B) length of string

(C) square root of tension (D) square root of length of string

29. Minimum length of a hall to produce an echo is

(A) 50 m (B) 34 m

(C) 25 m (D) 17 m

Space For Rough Work

30. The property of light that Huygen's wave theory could explain is

(A) Polarisation (B) Photoelectric effect

(C) Interference (D) Compton effect

31. The spectrum of black body radiation is successfully explained by

(A) Newton's corpuscular theory of light

(B) Huygen's wave theory of light

(C) Maxwell's electromagnetic theory of light

(D) Planck's quantum theory of light

32. For constructive interference of light, the path difference should be

(A) $\frac{2n\lambda}{2}$ (B) $(2n+1)\frac{\lambda}{2}$

(C) $(2n+1)\frac{\lambda}{3}$ (D) $(2n+1)\frac{\lambda}{4}$

33. Two very close objects are just resolved if the central maximum of one object is on

(A) central maximum of another

(B) first minimum of another

(C) beyond second minimum of another

(D) between central maximum and first minimum of another

34. The light is incident at polarising angle θ_p and the angle of refraction is r, then

(A) $\theta_p + r = 0°$ (B) $\theta_p + r = 90°$

(C) $\theta_p + r = 180°$ (D) $\theta_p + r = 360°$

Space For Rough Work

35. Minimum energy required to remove an electron from the metal surface is called

(A) Kinetic energy (B) Potential energy

(C) Work function (D) Energy function

36. When the size of the scattering particle is small, the intensity of scattered light is inversely proportional to

(A) fourth power of wavelength (B) square of wavelength

(C) square root of wavelength (D) cube of wavelength

37. Time for which an atom stays in metastable state is of the order of

(A) Seconds (B) Milli-seconds

(C) Micro-seconds (D) Nano-seconds

38. If an element emits β-ray then its atomic number

(A) increases by one (B) decreases by one

(C) remains same (D) decreases by two

39. If the concentration of H^+ ions is more than 10^{-7} gm ion per litre, the solution is

(A) Base (B) Acid

(C) Neutral (D) Both Acid and Base

40. A galvanic cell is one in which

(A) chemical energy produce electric energy

(B) electric energy produce chemical energy

(C) chemical energy will not produce electric energy

(D) electric energy will not produce chemical energy

Space For Rough Work

PART – B

APPLIED MATHEMATICS

41. The value of x if $\begin{vmatrix} 1 & 2 & 3 \\ 2 & x & 3 \\ 3 & 4 & 3 \end{vmatrix} = 0$ is

(A) 0 (B) -3

(C) 3 (D) 18

42. The value of x, if $4x + y = 7$, $3y + 4z = 5$ and $3z + 5x = 2$ is

(A) 0 (B) 1

(C) 3 (D) -1

43. If $A = \begin{bmatrix} 2 & -1 \\ 3 & -4 \end{bmatrix}$, then A^{-1} is

(A) $-\frac{1}{5}\begin{bmatrix} -4 & -3 \\ 1 & 2 \end{bmatrix}$ (B) $-\frac{1}{5}\begin{bmatrix} -4 & 1 \\ -3 & 2 \end{bmatrix}$

(C) $-\frac{1}{11}\begin{bmatrix} -4 & -3 \\ 1 & 2 \end{bmatrix}$ (D) $-\frac{1}{11}\begin{bmatrix} -4 & 1 \\ -3 & 2 \end{bmatrix}$

44. The characteristic equation of the matrix $A = \begin{bmatrix} 2 & -1 \\ 5 & -6 \end{bmatrix}$ is

(A) $A^2 + 8A - 7I = 0$ (B) $A^2 + 4A - 17I = 0$

(C) $A^2 + 4A + 7I = 0$ (D) $A^2 + 4A - 7I = 0$

Space For Rough Work

45. If $\begin{bmatrix} 2 & 3 \\ 1 & 2 \end{bmatrix} + A = \begin{bmatrix} 5 & 1 \\ 3 & 2 \end{bmatrix}$, then A is

(A) $\begin{bmatrix} 3 & 2 \\ -2 & 0 \end{bmatrix}$ (B) $\begin{bmatrix} 3 & -2 \\ 2 & 0 \end{bmatrix}$

(C) $\begin{bmatrix} -2 & 3 \\ 2 & 0 \end{bmatrix}$ (D) $\begin{bmatrix} 0 & 3 \\ -2 & 2 \end{bmatrix}$

46. The middle term of the expansion of $\left(x^2 - \frac{2}{x}\right)^{24}$ is

(A) ${}^{24}C_{10}2^{10}x^{12}$ (B) ${}^{24}C_{11}2^{12}x^{12}$

(C) ${}^{24}C_{13}2^{10}x^{10}$ (D) ${}^{24}C_{12}2^{12}x^{12}$

47. The term independent of x in $\left(x^2 - \frac{4}{3x}\right)^9$ is

(A) ${}^{9}C_{6}(4)^{6}$ (B) ${}^{9}C_{6}(3)^{-6}$

(C) ${}^{9}C_{6}\left(\frac{4}{3}\right)^{6}$ (D) ${}^{9}C_{6}\left(\frac{3}{4}\right)^{6}$

48. If $3i - 2j + k$, $i - 3j + 5k$, $2i + j - 4k$ are the sides of a triangle, then the triangle is

(A) Right angled triangle (B) Equilateral triangle

(C) Isosceles triangle (D) Isosceles right angled triangle

49. If $\vec{a} = (2, -1, 4)$ and $\vec{b} = (2, -3, 4)$, then projection of $\vec{a}$ on $\vec{b}$ is

(A) $\frac{23}{\sqrt{21}}$ (B) $\frac{23}{\sqrt{29}}$

(C) $\frac{-23}{\sqrt{29}}$ (D) $\frac{-23}{\sqrt{21}}$

Space For Rough Work

50. The sine of the angle between the vectors $(2i - 2j + k)$ and $2i + j + 2k$ is

(A) $\frac{\sqrt{65}}{3}$ (B) $\frac{\sqrt{65}}{\sqrt{3}}$

(C) $\frac{\sqrt{65}}{9}$ (D) $\sqrt{65}$

51. If $x \sin^2 45 = \frac{\tan^2 45 + \cot^2 30}{\sin^2 45 + \cos^2 45}$ then the value of x is

(A) 4 (B) 2

(C) 6 (D) 8

52. The value of $\frac{4}{3}\sec^2\frac{\pi}{3} - \text{cosec}^2\frac{\pi}{6} + \frac{3}{4}\tan^2\frac{\pi}{4} - 2\sin^2\frac{\pi}{3}$ is

(A) $-\frac{11}{12}$ (B) $\frac{53}{12}$

(C) $\frac{7}{12}$ (D) $-\frac{7}{12}$

53. The value of

$$\frac{\sin(90-\theta)}{\cos(360-\theta)} + \frac{\sec\left(\frac{3\pi}{2}+\theta\right)}{\text{cosec}(\pi+\theta)} + \frac{\tan(180-\theta)}{\tan(-\theta)} \text{ is}$$

(A) 1 (B) -1

(C) 3 (D) 2

54. The value of cosec 43 cot 43 cot 47 cos 47

(A) 1 (B) 0

(C) -1 (D) 2

Space For Rough Work

55. The value of $\frac{\tan 69^\circ + \tan 66^\circ}{1 - \tan 69^\circ \tan 66^\circ}$

(A) 1 (B) -1

(C) 0 (D) ∞

56. If $\tan \frac{A}{2} = x$ then sin A + tan A is

(A) $\frac{4x}{1-x^2}$ (B) $\frac{4x}{1+x^2}$

(C) $\frac{4x}{1+x^4}$ (D) $\frac{4x}{1-x^4}$

57. The value of $\sin 70^\circ - \sin 50^\circ - \sin 10^\circ$ is

(A) 1 (B) 0

(C) -1 (D) $\frac{1}{2}$

58. $\sin^{-1} x$ is also equal to

(A) $\text{cosec}^{-1}\left(\frac{1}{x}\right)$ (B) $\text{cosec}\, x$

(C) $\text{cosec}^{-1} x$ (D) $\frac{1}{\sin x}$

59. Centroid divides the median in the ratio

(A) 2 : 1 (B) 1 : 2

(C) 1 : 1 (D) 1 : 4

60. The co-ordinates of a point which divides the line join of the points (a + b, a − b) and (a − b, a + b) in the ratio 2 : 3 is

(A) $\frac{5a+5b}{5}, \frac{5a-5b}{5}$ (B) $\frac{a+b}{5}, \frac{a-b}{5}$

(C) $\frac{5a+b}{5}, \frac{5a-b}{5}$ (D) $\frac{5a-b}{5}, \frac{a+5b}{5}$

Space For Rough Work

61. The equation of straight line whose intercepts are 3 and 5 on the axes is

(A) $5x - 3y = 15$ (B) $5x + 3y = 15$

(C) $5x + 3y = 1$ (D) $15x + 15y = 1$

62. The angle between the lines whose slopes are $\sqrt{3}$ and $\frac{1}{\sqrt{3}}$ respectively is

(A) $\frac{\pi}{6}$ (B) $\frac{\pi}{3}$

(C) $\frac{\pi}{4}$ (D) $\frac{\pi}{2}$

63. The equation of the straight line passing through (2, 3) and x intercept is twice its y intercept is

(A) $x + 2y = 8$ (B) $x - 2y = 8$

(C) $x + y = 4$ (D) $2x + 2y = 8$

64. The equation to the line passing through the point (–6, 7) and parallel to the line joining (3, 4) and (6, –8) is

(A) $4x + y + 31 = 0$ (B) $x + 4y - 1 = 0$

(C) $x - 4y + 1 = 0$ (D) $4x + y + 17 = 0$

65. $\lim_{\theta \to \pi/2} (\sec\theta - \tan\theta)$ is equal to

(A) 0 (B) 1

(C) $\frac{\pi}{2}$ (D) π

66. $\lim_{x \to 4} \frac{x-4}{3-\sqrt{13-x}}$ is equal to

(A) 3 (B) 9

(C) 6 (D) 0

Space For Rough Work

67. If $y = (1 + \log x)^5$, then $\frac{dy}{dx}$ is

(A) $5(\log x)^4$ (B) $\frac{5}{x}(1 + \log x)^4$

(C) $5(1 + \log x)^4$ (D) $5x^4 \log x$

68. If $x = \cos^{-1} t$ and $y = \sin^{-1} t$, then $\frac{dy}{dx}$ is

(A) -1 (B) 1

(C) $\frac{1}{2\sqrt{1-t^2}}$ (D) $\frac{2}{\sqrt{1-t^2}}$

69. If $y = x \log y$, then $\frac{dy}{dx}$ is

(A) $\frac{\log x^x}{x - y}$ (B) $\frac{\log y^x}{x - y}$

(C) $\frac{\log y^y}{x - y}$ (D) $\frac{\log y^y}{y - x}$

70. If $y = \frac{x+1}{x+2}$, then $\frac{dy}{dx}$ is

(A) $\frac{1}{(x+2)^2}$ (B) $\frac{2x+3}{(x+2)^2}$

(C) $-\frac{1}{(x+2)^2}$ (D) $\frac{2x-3}{(x+2)^2}$

71. The equation of tangent to the curve $y^2 = 4x$ at (1, 2) is

(A) $x + y - 3 = 0$ (B) $x - y + 1 = 0$

(C) $2x - y = 0$ (D) $2x + y - 4 = 0$

Space For Rough Work

72. The maximum value of $7 - 8x - 2x^2$ is

(A) 15 (B) -4

(C) -2 (D) 31

73. The value of $\int \log 2x \, dx$ is

(A) $x \log 2x + x + C$ (B) $x \log 2x - x + C$

(C) $\frac{1}{2x} + C$ (D) $\frac{1}{x} + C$

74. The value of $\int \sec^4 x \cdot \tan x \, dx$

(A) $\frac{\sec^4 x}{4} + C$ (B) $4 \sec^4 x + C$

(C) $3 \sec^2 x + C$ (D) $\frac{\tan^4 x}{4} + C$

75. The value of $\int x \log x \, dx$ is

(A) $\frac{x^2}{2} \log x - \frac{x^2}{2} + C$ (B) $\frac{x^2}{2} \log x + \frac{x^2}{2} + C$

(C) $\frac{x^2}{2} \log x - \frac{x^2}{4} + C$ (D) $\frac{x^2}{2} \log x + \frac{x^2}{4} + C$

76. $\int_0^{\pi/4} \tan^2 x \, dx$ is equal to

(A) $\frac{\pi}{4} - 1$ (B) $1 - \frac{\pi}{4}$

(C) $\frac{\pi^2}{16}$ (D) $\frac{\pi^2}{16} - 1$

Space For Rough Work

77. The value of $\int_0^1 x\sqrt{1-x^2}\,dx$ is

(A) $-\frac{1}{3}$ (B) 0

(C) ∞ (D) $\frac{1}{3}$

78. The volume generated by revolving the line $y = x + 1$ about the x-axis between the ordinates $x = 0$ and $x = 2$

(A) $\frac{26\pi}{3}$ units (B) $\frac{10\pi}{3}$ units

(C) $\frac{26}{3}$ units (D) 4 units

79. The degree and order of the differential equation $\frac{d^2y}{dx^2} = \left[1+\left(\frac{dy}{dx}\right)^2\right]^{1/3}$ are

(A) 2 and 1 (B) 1 and 2

(C) 3 and 2 (D) 2 and 3

80. The solution of differential equation $\frac{dy}{dx} + y\tan x = \sec x$ is

(A) $y \sec x = \tan x + C$

(B) $y \sin x = \sec x + C$

(C) $\log(\sec x) = \tan x + C$

(D) $y \sec x = -\cot x + C$

Space For Rough Work

PART – C

TEXTILE TECHNOLOGY

It consists of **81** to **180** questions :

81. The fibres produced by addition polymerisation are

(A) Polyethylene and PAN (B) Polyester and Nylon 6

(C) Nylon 66 and viscose (D) Polyethylene and Polyester

82. The majority of cellulose deposited in

(A) Cuticle (B) Lumen

(C) Primary wall (D) Secondary wall

83. Extent of amorphous region in cotton is

(A) 40% (B) 33%

(C) 67% (D) 75%

84. The suitable condition for jute cultivation are

(A) High level and black soil (B) Acidic and black soil

(C) High level, Basic and loaming soil (D) Low lying, acidic and alluvial soil.

85. Scroopy feel is associated with

(A) Cotton (B) Silk

(C) Wool (D) Viscose

86. The Sulphur containing fiber is

(A) Cotton (B) Silk

(C) Wool (D) Viscose

Space For Rough Work

87. PET fiber is commercially called as

(A) Acrylic (B) Nylon

(C) Viscose (D) Polyester

88. In Xanthation process of viscose manufacture the chemical used is

(A) Carbon monoxide (B) Carbon dioxide

(C) Carbon disulphide (D) Carboxylic acid

89. Diacetate is soluble in

(A) Acetone (B) Chloroform

(C) Formic Acid (D) Water

90. The specific gravity of Nylon 66 filament is

(A) 1.38 g/cc (B) 1.14 g/cc

(C) 1.52 g/cc (D) 1.33 g/cc

91. The fiber produced by solution spinning is

(A) Polyester (B) Polypropylene

(C) Polyethylene (D) Acrylic

92. Graphatisation process is associated with

(A) Carbon (B) Kevlar

(C) Nomex (D) Spectra

93. The weight of Kapas is 3 grams. The weight of seeds is 2 grams. The ginning % of cotton is

(A) 23% (B) 33%

(C) 67% (D) 75%

Space For Rough Work

94. The purpose of auto levellers used in spinning is

(A) to increase parallelization of fibers

(B) to remove short fibers

(C) to improve uniformity

(D) doubling of slivers

95. Automixer is used in

(A) Blow room (B) Card

(C) Drawing (D) Winding

96. The sequence of operations in spinning :

(A) Blowroom → Card → Drawing → Roving → Spinning

(B) Blowroom → Drawing → Card → Roving → Spinning

(C) Blowroom → Drawing → Roving → Card → Spinning

(D) Blowroom → Roving → Spinning → Drawing → Card

97. Simplex machine is

(A) Opening machine (B) Card

(C) Roving frame (D) Ring frame

98. Lap is formed in

(A) Chute feed machine (B) Card

(C) Scutcher (D) Draw frame

99. 200 kg of Bale consisting of 20% trash is processed in Blowroom with cleaning efficiency of 60. The amount of trash in the lap is

(A) 16 kg (B) 20 kg

(C) 24 kg (D) 30 kg

Space For Rough Work

100. Cleaning efficiency is associated with

(A) Blowroom (B) Card

(C) Both Blowroom and Card (D) Neither Blowroom nor Card

101. Differential motion is used in

(A) Draw frame (B) Speed frame

(C) Card (D) Comber

102. The draft in Back zone, Middle zone and Front zone are 1.5, 2 and 3 respectively. The total draft is

(A) 6.5 (B) 9.0

(C) 2.1 (D) 7.5

103. A 64^S yarn has twist factor 4, then tpi of yarn is :

(A) 16 (B) 24

(C) 32 (D) 60

104. The limitation of rotor spinning is :

(A) It produces irregular yarn (B) Yarn cost is high

(C) It cannot produce finer yarns (D) It's production is less

105. The standard diameter doffer is

(A) 50 inches (B) 27 inches

(C) 9 inches (D) 7 inches

106. Gilling process is used for

(A) Cotton (B) Polyester

(C) Wool (D) Viscose

Space For Rough Work

107. The following is not a objective of winding :

(A) To remove the objectionable yarn faults.

(B) To produce a continuous long length of yarn.

(C) To remove the objectionable and non objectionable yarn faults.

(D) To produce a compact package which unwinds smoothly.

108. The normal range of angle of wind is from

(A) 40 – 45° (B) 30 – 35°

(C) 10 – 15° (D) 45 – 60°

109. Automatic Creel is essentially

(A) Magazine Creel modification (B) Truck Creel modification

(C) V-Creel modification (D) Mobile Creel modification

110. The adhesive used in sizing is

(A) CMC (B) Soap

(C) Paraffin wax (D) Glycerol

111. The device used for shedding is

(A) Tappet (B) Dobby

(C) Jacquard (D) All of these

112. The crank shaft runs at 600 rpm, then the speed of bottom shaft is

(A) 200 rpm (B) 300 rpm

(C) 600 rpm (D) 1200 rpm

113. Anti crack device is used to prevent

(A) Warp break (B) Weft break

(C) Thin place (D) Jack missing

Space For Rough Work

114. In air jet loom the filling yarn is first pushed by

(A) Tandem nozzle (B) Main nozzle

(C) Sub nozzle (D) Relay nozzle

115. Midget feeler mechanism is found in

(A) Air jet loom (B) Sulzer loom

(C) Automatic loom (D) Water jet loom

116. The diameter of jet in water jet loom is approximately

(A) 0.001 cm (B) 0.01 mm

(C) 0.1 mm (D) 1 mm

117. Torsion bar is used for

(A) Shedding (B) Picking

(C) Beat up (D) Let off

118. The weft exchange occurs between weft carriers in

(A) Rapier loom (B) Sulzer loom

(C) Air jet loom (D) Water jet loom

119. The loom speed is limited by use of

(A) Box motion (B) Gripper

(C) Cop change mechanism (D) Rapier

120. Dobbies are used to produce

(A) Plain weave (B) 3/4 Drill weave

(C) 12 End Honey Comb (D) Stripe design

Space For Rough Work

121. Softening of water is removal of

(A) Colour of water (B) Smell of water

(C) Hardness of water (D) Dissolved gases

122. Singeing process is must for fabric going to

(A) Scouring (B) Bleaching

(C) Dyeing (D) Printing

123. The yellowness of hypochlorite bleached fabric is due to presence of

(A) Chloramine (B) Sulphamine

(C) Acetaldehyde (D) Ester

124. The dye pickup is maximum in cotton fabric with

(A) Slack mercerised (B) Stretch mercerised

(C) Slack washed (D) Slack dried

125. In desizing, starch is removed by

(A) Rot desizing (B) Acid desizing

(C) Enzyme desizing (D) All of these

126. The reaction between oil and caustic soda is

(A) Saponification (B) Emulsification

(C) Esterification (D) Naphtholation

127. The desizing agent suitable for wool is

(A) Hydrogen peroxide (B) Sodium hypochlorite

(C) Calcium hypochlorite (D) Sodium chloride

Space For Rough Work

128. The direct dyed goods are topped with

(A) Basic dye (B) Disperse dye

(C) Acid dyes (D) Metal complex dyes

129. Procian H type dyes are dyed at

(A) 10 – 20 °C (B) 20 – 30 °C

(C) 30 – 40 °C (D) 60 – 80 °C

130. The diazotisation process is related with

(A) Acid dyes (B) Azoic dyes

(C) Basic dyes (D) Disperse dyes

131. The most essential ingredient of printing paste is

(A) Wetting agent (B) Thickner

(C) Oxidising agent (D) Acid

132. The acid liberating salt is

(A) Ammonium sulphate (B) Sodium sulphate

(C) Calcium carbonate (D) Magnesium sulphate

133. The example of permanent finish is

(A) Calendering (B) Raising

(C) Damping (D) Back filling

134. The HT HP dyeing machines work on principle

(A) $PV = RT$ (B) $PE = mgh$

(C) $KE = \frac{1}{2} mv^2$ (D) $n_1 V_1 = n_2 V_2$

Space For Rough Work

135. The sample in which each and every individual of population have an equal chance to be included in it is

(A) Biased sample
(B) Random sample
(C) Extent bias sample
(D) Individual

136. The excluded part of sample of fabric is

(A) Warp threads
(B) Weft threads
(C) Selvedge
(D) Color

137. The moisture regain of wool is 18%. Its moisture content is

(A) 18%
(B) 18.5%
(C) 17%
(D) 15.25%

138. The 2.5% span length is 2", the meaning is

(A) 2.5% of Fibres length is equal to exactly 2".
(B) 2.5% of Fibres will have less than 2" or equal to 2"
(C) 2.5% of Fibres will have less than 2"
(D) 2.5% of Fibres will have 2" length or more than 2"

139. The specific surface is inversely proportional to fibre

(A) Length
(B) Strength
(C) Diameter
(D) F Q I

140. The expression of maturity coefficient with usual notations is

(A) $\frac{N+0.6H+0.4D}{100}$
(B) $\frac{N-0.6D+0.8H}{100}$
(C) $\frac{H+0.7N+0.2D}{100}$
(D) $\frac{N+H+D}{100}$

Space For Rough Work

141. 9 tex of yarn will have a denier value of

(A) 9 (B) 10

(C) 90 (D) 120

142. The helix angle of yarn depends on

(A) Yarn length and twist length (B) Yarn diameter and twist length

(C) Yarn diameter and yarn length (D) Yarn twist /inch and yarn hariness

143. The limit irregularity is attributed to

(A) Machine irregularity (B) Fibre irregularity

(C) Human irregularity (D) Processing irregularity

144. Abrasion resistance is used to assess

(A) Air permeability (B) Crease recovery

(C) Dimensional stability (D) Serviceability

145. The bursting strength usually carried out for assessing strength of

(A) Plain woven fabric (B) Twill woven fabric

(C) Plain jersey fabric (D) Matt woven fabric

146. The standard deviation of standard normal distribution is

(A) 0 (B) 1

(C) 1.5 (D) 3

147. The significant test suitable for testing of small sample mean strength is

(A) z-test (B) 't'-test

(C) F-test (D) χ^2-test

Space For Rough Work

148. The Fibre which has excellent crease recovery is

(A) Wool (B) Viscose

(C) Cotton (D) Jute

149. Which of the following is a warp faced fabric ?

(A) Casement (B) Cotton canvas

(C) Cotton limbric (D) All of these

150. A 30^{s} cotton count yarn has

(A) 25,200 yds/lb (B) 20,000 yds/lb

(C) 22,200 yds/lb (D) 24,200 yds/lb

151. The uses of Damask are

(A) Furnishings (B) Table cloths

(C) Bed sheets (D) All of these

152. To produce 6 pick terry weave how many picks are required ?

(A) 3 (B) 4

(C) 6 (D) 5

153. Which of the following is not a double cloth ?

(A) Self stitched (B) Cloth interchange

(C) Centre stitch (D) Warp wadded weft backed

154. Disposal of extra threads are associated with

(A) Terry piles (B) Self stitched double cloths

(C) Extra thread figuring (D) Warp backed cloths

Space For Rough Work

155. In which of the following the warp yarns should be lubricated during weaving ?

(A) Gauze & leno (B) Extra thread figuring

(C) Backed cloths (D) Double cloths

156. Which of the following Basic weave is used to construct Dog's tooth design ?

(A) Plain (B) 2/2 twill

(C) 2/2 matt (D) 5 end sateen

157. Which Sateen are not having possible move numbers ?

(A) 4 & 6 end (B) 3 & 5 end

(C) 5 & 8 end (D) 8 & 10 end

158. If the crossing end is drawn on right side of the standard end. then the shed formed during Leno manufacturing is

(A) Cross (B) Open

(C) Plain (D) All of these

159. Long stapled fibres are used in which of the following to prevent fibre shedding during use ?

(A) Double cloth (B) Backed cloth

(C) Terry piles (D) Damasks

160. For producing plain weave using skip draft, the number of heald shafts required are

(A) 2 (B) 3

(C) 4 (D) 5

161. The productivity is highest for

(A) Latch needle (B) Bearded needle

(C) Compound needle (D) Double hook needle

Space For Rough Work

162. Horizontal set of loops are termed as

(A) Courses (B) Wales

(C) Warp (D) Weft

163. Weft knit structure is

(A) Plain jersey (B) Rib

(C) Inter lock (D) All of these

164. The cams imparts motion to the needle via

(A) Hook (B) Stem

(C) Butt (D) Latch

165. The new loop is drawn through the old loop the process is known as

(A) Running (B) Clearing

(C) Knock off (D) Purling

166. Chain links are used in the machine

(A) Tricot (B) Single jersey

(C) Rib (D) Inter lock

167. Tricot structure is

(A) Satin (B) Le coste

(C) Derby rib (D) Accordian

168. Tuck is formed when

(A) Needle is raised to full height (B) Needle is partially raised

(C) When needle is not raised (D) When needle is lowered

Space For Rough Work

169. Which of the following point system tends to classify fabrics as first ?

(A) 10 point system (B) 4 point system

(C) 6 point system (D) 8 point system

170. Model or replica of various components of a garment is

(A) Pattern (B) Drafting

(C) Garmenting (D) Grading

171. Which of the following is not the requirement of cutting ?

(A) Precision cut (B) Clean edges

(C) Correct ply direction (D) Consistent cutting

172. Which of the following sewing threads have increased luster and higher tenacity ?

(A) Cotton sewing threads (B) Mercerised cotton sewing threads

(C) Scoured cotton sewing threads (D) Bleached cotton sewing threads

173. Which of the following is not a sewing work aid ?

(A) Edge guides (B) Folders

(C) Stitching jig (D) Shank

174. Which of the following are alternative methods of joining materials ?

(A) Fusing (B) Welding and adhesives

(C) Moulding (D) All of these

175. In care labelling 'Δ' represents

(A) Dry cleaning instructions (B) Drying instructions

(C) Bleaching instructions (D) Washing instructions

Space For Rough Work

176. Which of the following are sewing defects ?

(A) Seam pucker (B) Hole in fabric

(C) Gout (D) Thin place

177. To select samples for inspection from a given lot in AQL is given by

(A) Percent Defective = $\frac{\text{Number of defective units}}{\text{No of units inspected}} \times 100$

(B) Percent Defective = $\frac{\text{Number of units inspected}}{\text{No of defects}} \times 100$

(C) Percent Defective = $\frac{\text{Number of lot size}}{\text{No of defects}} \times 100$

(D) Percent Defective = $\frac{\text{Number of defects}}{\text{Total no. of lot size}} \times 100$

178. Which of the following is a Embroidery stitch ?

(A) Decorative stitch (B) Edge neating stitch

(C) Flat stitch (D) Feather stitch

179. DMAI & DMADV are associated with

(A) Kaizen technique (B) Poka-Yoka

(C) AQL (D) six sigma

180. In carton drop test, the drop height standard for 1-20 lbs package weight is

(A) 8 inches (B) 30 inches

(C) 18 inches (D) 24 inches

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