# DIPLOMA - COMMON ENTRANCE TEST-2016

| 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 - 1 | 125681 |

**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 :

(A) ● (C) (D)

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. Hand over 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.**

**TX-A1**

# PART – A

## APPLIED SCIENCE

1. An example of basic S.I. unit is
   - (A) Newton
   - (B) Joule
   - (C) Ampere
   - (D) Watt

2. The prefix used for $10^{+2}$ is
   - (A) hecta
   - (B) centi
   - (C) pico
   - (D) peta

3. An example of dimensionless physical quantity is
   - (A) surface tension
   - (B) strain
   - (C) impulse
   - (D) period

4. The velocity of a freely falling body gradually _____ as it falls.
   - (A) decreases
   - (B) increases
   - (C) remains same
   - (D) increases and then decreases

5. A main scale is divided into half mm and having a vernier containing 20 divisions has a least count of _____ cm.
   - (A) $2.5 \times 10^{-2}$
   - (B) $0.5 \times 10^{-2}$
   - (C) $0.025 \times 10^{-2}$
   - (D) $0.25 \times 10^{-2}$

6. For a particular mass of the moving body, its friction is minimum when it is
   - (A) sliding
   - (B) static
   - (C) rolling
   - (D) dragged

**Space For Rough Work**

7. All equations of motion hold good under the condition of

   (A) constant velocity
   (B) constant acceleration
   (C) variable velocity
   (D) variable acceleration

8. A force of $1.5 \times 10^{-2}$ N acts for 3 seconds on a body of mass 0.05 kg moving with velocity 4 m/s. The final velocity of the body is

   (A) 4.9 m/s
   (B) 18 m/s
   (C) 9 m/s
   (D) 7.5 m/s

9. To check the equilibrium of five coplanar concurrent forces, we use law of

   (A) Parallelogram of forces
   (B) Triangle of forces
   (C) Lami's theorem
   (D) Polygon of forces

10. The S.I. unit of momentum is

    (A) kg m
    (B) $kg\ m^{-1}s^{-1}$
    (C) $kg\ m\ s^{-2}$
    (D) $kg\ m\ s^{-1}$

11. When three forces acting at a point are in equilibrium, the angle opposite to biggest force is always _____ angle.

    (A) biggest
    (B) smallest
    (C) equal to other
    (D) obtuse

12. Towing of a boat by two forces is an illustration of

    (A) Law of parallelogram of forces.
    (B) Lami's theorem.
    (C) Law of triangle of forces.
    (D) Law of polygon of forces.

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13. Two forces 3N and 5N acts on a body simultaneously making an angle 60° between them. The resultant force on the body is

(A) 8 N

(B) 4 N

(C) 7 N

(D) 49 N

14. Dimensional formula for stress is

(A) $[LM^{-1}T^{-2}]$

(B) $[L^{-1}MT^{-2}]$

(C) $[L^{-1}M^{-1}T]$

(D) $[L^2M^{-1}T^{-2}]$

15. The pull in the bicycle chain is an example of

(A) tensile stress

(B) volume stress

(C) shear stress

(D) shear strain

16. Viscosity of water at 20 °C in centipoise is

(A) 1.792

(B) 0.650

(C) 1.005

(D) 0.470

17. Dimensional formula of surface tension is

(A) $[LMT^{-2}]$

(B) $[L^2MT^{-2}]$

(C) $[LM^{-1}T^{-2}]$

(D) $[L^0MT^{-2}]$

18. A steel needle can be floated on the surface of water because of the

(A) density of steel is greater than water

(B) density of steel is less than water

(C) surface tension

(D) viscosity

Space For Rough Work

19. Thrust on the bottom of the container having a base area of $10 \text{ m}^2$ filled with water to a height of 6 m is

(A) $60 \times 10^2 \text{ N}$

(B) $58.8 \times 10^4 \text{ N}$

(C) $60.8 \text{ N}$

(D) $600 \text{ N}$

20. Keeping the temperature constant, if the pressure of the gas is doubled its volume

(A) remains constant

(B) doubles

(C) reduces to one fourth

(D) reduces to half

21. Heat transfer in the absence of the medium is

(A) conduction

(B) convection

(C) radiation

(D) absorption

22. Zero of absolute scale of temperature is at

(A) $0 \,^\circ\text{C}$

(B) $100 \,^\circ\text{C}$

(C) $273 \,^\circ\text{C}$

(D) $-273 \,^\circ\text{C}$

23. Ripples on water surface is an example of

(A) electromagnetic waves

(B) transverse waves

(C) waves travelling in space

(D) longitudinal waves

24. The time interval between two consecutive waxing and waning of sound waves is

(A) beat period

(B) wave period

(C) beat frequency

(D) wave frequency

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25. S.I. unit of intensity of sound is

   (A) watt per square meter        (B) watt per meter

   (C) watt square meter            (D) watt meter

26. The study of characteristics of buildings with reference to sound is

   (A) resonance                    (B) interference

   (C) echo                         (D) acoustics

27. The distance travelled by the disturbance in the medium for one complete oscillation is

   (A) wave velocity                (B) wavelength

   (C) wave frequency               (D) wave amplitude

28. Momentum of a photon is given by

   (A) $P = \dfrac{\lambda}{h}$        (B) $P = \dfrac{h}{\lambda}$

   (C) $P = \lambda h$                 (D) $P = \lambda^2 h$

29. The velocity of sound in case of liquids is given by

   (A) $\sqrt{\dfrac{d}{k}}$           (B) $\sqrt{kd}$

   (C) $\sqrt{\dfrac{k}{d}}$           (D) $\sqrt{\dfrac{d^2}{k}}$

30. A tuning fork vibrating in air is an example of

   (A) damped free vibrations       (B) resonant vibrations

   (C) undamped free vibrations     (D) forced vibrations

**Space For Rough Work**

31. Raman lines are

(A) unpolarised

(B) polarised

(C) diffracted

(D) reflected


32. A crystal which has two optic axes is

(A) calcite

(B) quartz

(C) mica

(D) glass


33. Electron microscope is used to

(A) study virus and bacteria

(B) view three dimensional images

(C) automatic switching on and off of street-lights

(D) electronic industry for soldering


34. Which of the following statements is correct in case of $\gamma$-rays ?

(A) Penetrating power is less than $\beta$-rays.

(B) Penetrating power is less than $\alpha$-rays.

(C) Penetrating power is very high.

(D) $\gamma$ particles are nothing but electrons.


35. For destructive interference of light the path difference should always be

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

(B) $\dfrac{n\lambda}{2}$

(C) $(2n + 1) \dfrac{\lambda}{3}$

(D) $n\lambda$

**Space For Rough Work**

36. The resultant intensity of interference of two monochromatic waves having same amplitude and constant phase difference equal to $\phi$ is

(A) $2a \cos \left( \dfrac{\phi}{2} \right)$

(B) $4a^2 \cos^2 \left( \dfrac{\phi}{2} \right)$

(C) $4a^2 \cos \left( \dfrac{\phi}{2} \right)$

(D) $4a \cos^2 \left( \dfrac{\phi}{2} \right)$

37. For two objects to be just resolved, the principle maximum should be on

(A) first maximum

(B) second maximum

(C) first minimum

(D) second minimum

38. Resolving power of microscope is given by

(A) $\dfrac{\lambda}{2n \sin \theta}$

(B) $\dfrac{n}{2\lambda \sin \theta}$

(C) $\dfrac{2\lambda \sin \theta}{n}$

(D) $\dfrac{2n \sin \theta}{\lambda}$

39. In case of acids, the concentration of $H^+$ ions is

(A) more than $10^{-7}$ g ions/litre.

(B) less than $10^{-7}$ g ions/litre.

(C) equal to $10^{-7}$ g ions/litre.

(D) between $10^{-7}$ g ions/litre and $10^{-14}$ g ions/litre.

40. Corrosion of metal can be prevented by keeping it in

(A) acidic medium

(B) basic medium

(C) neutral medium

(D) moisture

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Space For Rough Work

## APPLIED MATHEMATICS

41. The value of the determinant $A = \begin{vmatrix} 1 & 1 & 1 \\ 3 & 3 & 3 \\ 4 & 5 & 6 \end{vmatrix}$ is

    (A) 1                          (B) 3

    (C) −2                         (D) 0

42. The value '$x$' by Cramer's rule in $3x + 2y = 4$ and $x - 2y = 8$ is

    (A) 12                         (B) 3

    (C) −13                        (D) 15

43. If $A = \begin{bmatrix} 2 & -3 \\ 1 & 5 \end{bmatrix}$ $B = \begin{bmatrix} 1 & 2 \\ 4 & -3 \end{bmatrix}$, then $A + 2B$ is

    (A) $\begin{bmatrix} 4 & 1 \\ 9 & -1 \end{bmatrix}$        (B) $\begin{bmatrix} 4 & 1 \\ 9 & 1 \end{bmatrix}$

    (C) $\begin{bmatrix} 3 & -1 \\ 5 & 2 \end{bmatrix}$        (D) $\begin{bmatrix} 3 & 1 \\ 5 & 2 \end{bmatrix}$

44. If $A = \begin{bmatrix} 2 & 3 & 4 \\ -2 & x & -4 \\ -5 & 6 & 7 \end{bmatrix}$ is singular, then the value of $x$ is

    (A) −3                         (B) 3

    (C) $\dfrac{1}{3}$             (D) $\dfrac{-1}{3}$

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**45.** The characteristic roots of the matrix $A = \begin{bmatrix} 1 & 4 \\ 3 & 2 \end{bmatrix}$ is

(A)  5, 2

(B)  −5, −2

(C)  5, −2

(D)  −5, 2

**46.** If $^nC_{16} = {}^nC_3$, then the value of n is

(A)  −19

(B)  19

(C)  13

(D)  −13

**47.** The last term in the expansion of $\left(3x^2 + \dfrac{1}{2x^2}\right)^4$ is

(A)  $\dfrac{1}{8x^8}$

(B)  $\dfrac{1}{16x^8}$

(C)  $81\,x^8$

(D)  $12\,x^8$

**48.** The unit vector of $\vec{a} = 2i - 3j + 4k$ is

(A)  $\dfrac{2i - 3j + 4k}{\sqrt{29}}$

(B)  $\dfrac{2i - 3j + 4k}{\sqrt{11}}$

(C)  $\dfrac{2i - 3j + 4k}{\sqrt{3}}$

(D)  $\dfrac{\sqrt{29}}{2i - 3j + 4k}$

**49.** If $\vec{a} = i - 4j + 3k$ and $\vec{b} = -2i + j + 6k$, then the projection of $\vec{a}$ on $\vec{b}$ is

(A)  $\dfrac{24}{\sqrt{41}}$

(B)  $\dfrac{12}{\sqrt{26}}$

(C)  $\dfrac{-12}{\sqrt{41}}$

(D)  $\dfrac{12}{\sqrt{41}}$

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50. The area of triangle whose two sides are $\bar{a} = 3i + 4j + k$ and $\vec{b} = 5i + 6j + 2k$ is

(A)  3 sq. units

(B)  $\dfrac{1}{2}$ sq. units

(C)  $\dfrac{3}{2}$ sq. units

(D)  $\dfrac{9}{2}$ sq. units

51. The simplification of $\dfrac{1}{1+\sin\theta} + \dfrac{1}{1-\sin\theta}$ is

(A)  $2\cos^2\theta$

(B)  $2\sec^2\theta$

(C)  $\tan^2\theta$

(D)  $2\,\mathrm{cosec}^2\theta$

52. The value of $\tan^2 30° + \sin^2 45° + \cos^2 90° + \cos^2 60°$ is

(A)  $\dfrac{4}{3}$

(B)  $\dfrac{13}{12}$

(C)  $\dfrac{13}{24}$

(D)  $\dfrac{25}{12}$

53. The simplification of $\dfrac{\sin(180°-A)\,\cos(360°-A)}{\tan(90°+A)\,\sin(-A)}$ is

(A)  $\sin A$

(B)  $\mathrm{cosec}\,A$

(C)  $-\sin A$

(D)  $-\mathrm{cosec}\,A$

54. If $\cos A = \dfrac{-3}{5}$ where $90° < A < 180°$, then the value of $\cot A$ is

(A)  $\dfrac{3}{4}$

(B)  $\dfrac{4}{3}$

(C)  $\dfrac{-3}{4}$

(D)  $\dfrac{-4}{3}$

Space For Rough Work

55. The value of cos 105° is

(A) $\dfrac{\sqrt{3}-1}{2\sqrt{2}}$

(B) $\dfrac{\sqrt{3}+1}{2\sqrt{2}}$

(C) $\dfrac{2\sqrt{2}}{1-\sqrt{3}}$

(D) $\dfrac{1-\sqrt{3}}{2\sqrt{2}}$

56. If $\tan\dfrac{A}{2}=\dfrac{1-\cos A}{\sin A}$, then the value of $\tan 22\dfrac{1}{2}^{\circ}$ is

(A) $\sqrt{2}+1$

(B) $1-\sqrt{2}$

(C) $\sqrt{2}-1$

(D) $-1-\sqrt{2}$

57. The value of $\cos 5x \cdot \cos 3x$ is

(A) $\cos 8x + \cos 2x$

(B) $\dfrac{1}{2}(\cos 8x + \cos 2x)$

(C) $\dfrac{1}{2}(\sin 8x + \sin 2x)$

(D) $\dfrac{1}{2}(\cos 8x - \cos 2x)$

58. The simplified value of $\tan^{-1}\left(\dfrac{1}{2}\right)+\tan^{-1}\left(\dfrac{1}{3}\right)$ is

(A) $\dfrac{\pi}{4}$

(B) $\dfrac{\pi}{3}$

(C) $1$

(D) $\tan^{-1}\left(\dfrac{1}{7}\right)$

59. Distance of a point P(– 2, 5) from the origin is

(A) $\sqrt{29}$

(B) $\sqrt{21}$

(C) $\sqrt{3}$

(D) $29$

60. The co-ordinates of the point which divides the line joining the points A (8, 3) and B(–5, 6) in the ratio of 2 : 3 externally is

(A) $(-34,-3)$

(B) $(34,3)$

(C) $\left(\dfrac{14}{5},\dfrac{21}{5}\right)$

(D) $(34,-3)$

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**Space For Rough Work**

61. The area of triangle with the vertices $(5, 3)$, $(4, 6)$ and $(5, 8)$ is

   (A) $\dfrac{15}{2}$ sq. units

   (B) $15$ sq. units

   (C) $\dfrac{5}{2}$ sq. units

   (D) $\dfrac{45}{2}$ sq. units

62. The slope of the line making an angle $150°$ with the $x$-axis is

   (A) $\dfrac{-1}{\sqrt{3}}$

   (B) $\dfrac{1}{\sqrt{3}}$

   (C) $\sqrt{3}$

   (D) $-\sqrt{3}$

63. The two point form of a straight line is

   (A) $y - y_1 = m(x - x_1)$

   (B) $\dfrac{y - y_1}{x - x_1} = \dfrac{y_2 - y_1}{x_2 - x_1}$

   (C) $\dfrac{y}{x} = \dfrac{y_2 - y_1}{x_2 - x_1}$

   (D) $\dfrac{y - y_2}{x - x_2} = \dfrac{y_2 - y_1}{x_2 - x_1}$

64. The equation of straight line perpendicular to $2x + 5y - 8 = 0$ and passing through $(-1, 2)$ is

   (A) $2x + 5y + 9 = 0$

   (B) $5x - 2y + 1 = 0$

   (C) $5x - 2y + 9 = 0$

   (D) $5x + 2y - 9 = 0$

65. The value of $\displaystyle\lim_{x \to 3} \dfrac{2x^2 - 7x + 3}{2x - 6}$ is

   (A) $3$

   (B) $\dfrac{2}{5}$

   (C) $\dfrac{5}{2}$

   (D) $5$

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TX

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A-1

66. The value of $\displaystyle\lim_{x \to 0} \frac{\sqrt{1 - \cos x}}{x}$ is

    (A)   $\dfrac{1}{\sqrt{2}}$              (B)   $\sqrt{2}$

    (C)   $\dfrac{1}{2}$               (D)   1

67. If $y = e^x (\cos x - \sin x)$, then $\dfrac{dy}{dx}$ is

    (A)   $2e^x \cos x$              (B)   $-2e^x \cos x$

    (C)   $2e^x \sin x$              (D)   $-2e^x \sin x$

68. If $x + y = \log x + \log y$, then $\dfrac{dy}{dx}$ at $x = -1$ and $y = 2$ is

    (A)   $-\dfrac{1}{4}$              (B)   $-4$

    (C)   $4$                 (D)   $\dfrac{1}{2}$

69. If $x = a \cos^2 \theta$ and $y = b \sin^2 \theta$, then $\dfrac{dy}{dx}$ is

    (A)   $\dfrac{-b}{a}$              (B)   $\dfrac{b}{a}$

    (C)   $\dfrac{a}{b}$               (D)   $\dfrac{-a}{b}$

70. The second derivative of $y = \log\left(\dfrac{1}{x}\right)$ is

    (A)   $x$                 (B)   $1$

    (C)   $\dfrac{1}{x^2}$              (D)   $\dfrac{-1}{x^2}$

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**Space For Rough Work**

71. The equation of normal to the curve $y = (2x + 1)^2$ at $(-2, 0)$ is

(A) $x - 16y + 2 = 0$

(B) $x - 12y + 2 = 0$

(C) $x + 16y + 2 = 0$

(D) $x + 12y + 2 = 0$


72. The maximum value of the function $y = 2x^3 + 3x^2 - 36x$ is

(A) $-44$

(B) $-30$

(C) $81$

(D) $-81$


73. The value of $\int \sin 3x \cos 2x \, dx$ is

(A) $\dfrac{-1}{2} \left[ \dfrac{\cos 5x}{5} + \cos x \right] + C$

(B) $\dfrac{1}{2} \left[ \dfrac{-\cos 5x}{5} + \cos x \right] + C$

(C) $\dfrac{1}{2} \left[ \dfrac{\cos 5x}{5} + \cos x \right] + C$

(D) $\dfrac{-1}{2} [\cos 5x + \cos x] + C$


74. The value of $\int x^2 \sin(2x^3) \, dx$ is

(A) $\dfrac{-\cos(2x^3)}{6} + C$

(B) $\dfrac{-\cos(2x^3)}{3} + C$

(C) $12x^3 \cos (2x^3) + C$

(D) $\dfrac{\cos(2x^3)}{6} + C$


75. $\int \log x \, dx$ is

(A) $\dfrac{1}{x} + C$

(B) $\dfrac{1}{x} - x + C$

(C) $x \log x + x + C$

(D) $x \log x - x + C$

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76. The value of $\int_0^{\pi/2} \sqrt{1+\sin 2x}\ dx$ is

   (A)  0                                    (B)  1

   (C)  2                                    (D)  $-2$

77. $\int_0^1 \dfrac{x}{1+x^4}$ is

   (A)  $\dfrac{\pi}{4}$                                    (B)  $\dfrac{\pi}{8}$

   (C)  $\dfrac{-\pi}{8}$                                (D)  $\dfrac{-\pi}{4}$

78. The area formed by the curve $y = (2x + 1)^3$ between the ordinates $x = -1$ and $x = 1$ is

   (A)  $\dfrac{41}{4}$ sq. units                     (B)  2 sq. units

   (C)  20 sq. units                           (D)  10 sq. units

79. The order and degree of differential equation $\left[1+\left(\dfrac{dy}{dx}\right)^4\right]^{2/3} = \dfrac{d^2y}{dx^2}$ is

   (A)  order 2 and degree 3             (B)  order 2 and degree 1

   (C)  order 1 and degree 2             (D)  order 1 and degree 4

80. The solution of differential equation $\sec^2x \tan y\ dx + \sec^2y \tan x\ dy = 0$ is

   (A)  $\tan^2x + \tan^2y = C$           (B)  $\tan x + \tan y = C$

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

**Space For Rough Work**

# PART-C

## TEXTILE TECHNOLOGY

It consists of **81-180** Questions.

81. The density of cotton fiber is
    (A) 1.54 gms/cc
    (B) 0.4 gms/cc
    (C) 0.30 gms/cc
    (D) 0.25 gms/cc

82. Cellulose is present in _____ fiber.
    (A) wool
    (B) silk
    (C) glass
    (D) cotton

83. Jute belongs to
    (A) Protein fiber
    (B) Bast fiber
    (C) Silk fiber
    (D) Man-made fiber

84. Sericulture belongs to
    (A) Cotton fiber
    (B) Wool fiber
    (C) Silk fiber
    (D) Bast fiber

85. The density of silk in raw state is
    (A) 1.33 gms/cc
    (B) 0.54 gms/cc
    (C) 0.52 gms/cc
    (D) 0.20 gms/cc

86. Convolutions are present in _____ fiber.
    (A) Wool
    (B) Silk
    (C) Cotton
    (D) None of these

**Space For Rough Work**

87. Single unit of polymer is called

(A) Polymer
(B) Monomer
(C) Polymerisation
(D) None of these

88. Duration of chemical retting for Jute fiber is

(A) 7 to 15 Days
(B) 10 to 20 Days
(C) 6 to 8 hours
(D) 20 to 30 Days

89. Density of Nylon fiber is

(A) 0.4 gms/cc
(B) 0.52 gms/cc
(C) 1.14 gms/cc
(D) 0.60 gms/cc

90. Caprolactum is generally used to prepare

(A) Nylon 6
(B) Silk
(C) Cotton
(D) Wool

91. Density of Nomex fiber is

(A) 0.45 gms/cc
(B) 1.45 gms/cc
(C) 5.4 gms/cc
(D) None of these

92. Melting temperature of Kevlar fiber is

(A) 10°C
(B) 20°C
(C) 30°C
(D) 500°C

93. Normally for Indian cotton

(A) Saw-gin is used
(B) Macarthy gin is used
(C) Knife roller gin used
(D) Any gin can be used

**Space For Rough Work**

94. The strength of air jet spun yarn is

   (A) Higher than ring spun yarns
   (B) Lesser than ring spun yarn
   (C) Equal to ring spun yarn
   (D) Lesser than rotor yarn

95. The condensing zone in card is

   (A) Feed roller & licker-in
   (B) Licker-in & Cylinder
   (C) Cylinder & flats
   (D) Cylinder & doffer

96. Back Doubling is feature of

   (A) Draw frame
   (B) Ring frame
   (C) Air Jet Spinning
   (D) Rotor Spinning

97. Card introduces

   (A) Long term variation
   (B) Medium term variation
   (C) Short term variation
   (D) All the above

98. The speed of the front roller is 300 rpm and back roller speed is 50 rpm then the draft is

   (A) 6
   (B) 0.16
   (C) 8
   (D) 5.3

99. The action between cylinder to liker-in is

   (A) Point to point
   (B) Point to back
   (C) Back to point
   (D) Both point to back & back to point

100. Umbrella creels are used in

   (A) Card
   (B) Draw frame
   (C) Roving frame
   (D) Comber

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**Space For Rough Work**

**101.** Differential motion is used in

    (A)  Ring frame            (B)  Speed frame

    (C)  Comber               (D)  Modern draw frame

**102.** Twist at speed frame is useful

    (A)  To increase strength of yarn

    (B)  To withstand the stress & strain during winding

    (C)  To reduce breakage at speed frame

    (D)  To impart uniformity to roving

**103.** Compared to the laps, the nep level in the card sliver should be

    (A)  Less                (B)  More

    (C)  Same               (D)  Zero

**104.** DREF-I & DREF-II are associated with

    (A)  Air jet spinning system       (B)  Friction spinning system

    (C)  Rotor spinning system        (D)  Ring spinning system

**105.** The ratio of fan speed to the beater for cotton processing is

    (A)  0.5 – 1.0           (B)  1.5 – 2.0

    (C)  1.2 – 1.3           (D)  1.8 – 2.0

**106.** Which of the following is modern beater ?

    (A)  3 – Bladed beater        (B)  Step cleaner

    (C)  2 – Bladed beater        (D)  Vertical opener

**107.** The minimum number of heald shafts required for tappet shedding is

    (A)  3                 (B)  4

    (C)  2                 (D)  1

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**108.** Bumping condition is

(A) Fabric is slack at Beat up

(B) Fabric is tight at Beating

(C) High strain on warp during shedding

(D) High picking force

**109.** Bang-off is associated with

(A) Take up motion      (B) Let-off motion

(C) Fast reed motion      (D) Side weft fork motion

**110.** Loose reed and fast reed mechanism is for

(A) Warp protection      (B) Selvedge mechanism

(C) Weft protection      (D) None of these

**111.** Crimp of yarn in fabric is

(A) $L/P - 1$      (B) $L - P/1$

(C) $P - 1/P$      (D) $100L - P/P$

**112.** Epicyclic gear train is found in

(A) Sulzer picking      (B) Rapier let off

(C) Seven wheel take up      (D) Rapier insertion

**113.** Single lift, Single Cylinder jacquard produce _____ shed.

(A) Open      (B) Bottom closed

(C) Semi Open      (D) None of these

**114.** Sley Eccentricity ratio is

(A) $r/l$      (B) $2r \times l$

(C) $rl$      (D) $rl/2$

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115. Practical value of dividend in seven wheel take up is

    (A)  1                              (B)  2

    (C)  0.5                            (D)  3


116. Sizing imparts

    (A)  Strength                       (B)  Hairiness

    (C)  Rigidity                       (D)  Luster


117. Hardness of a cone can be changed by changing the

    (A)  Traverse                       (B)  Wind per double traverse

    (C)  Winding angle                  (D)  Conicity of the package


118. The speed of loom in shuttle less loom is expressed in terms of

    (A)  WIR                            (B)  mtr/min

    (C)  1 & 2                          (D)  None


119. Periodic thick place introduces

    (A)  Gout                           (B)  Lashing

    (C)  Phurkies                       (D)  Weft bar


120. Resultant count of 2 yarns in indirect system

    (A)  $R_1 \times R_2 / R_1 + R_2$          (B)  $R_1 + R_2 / R_1 + R_2$

    (C)  $R = 1/R_1 + 1/R_2$                    (D)  $R = R_1 + R_2$


121. Hardness of water is due to presence of carbonate, bicarbonate, chloride, sulphate of

    (A)  Calcium & Magnesium            (B)  Copper

    (C)  Silver                         (D)  Gold

**Space For Rough Work**

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**122.** The dry process in preparatory process of fabric is

    (A)   Scouring                (B)   Bleaching

    (C)   Singeing               (D)   Dyeing

**123.** In desizing the material removed is

    (A)   Size                    (B)   Colour

    (C)   Fiber                   (D)   None of these

**124.** The chemical name of bleaching powder is

    (A)   Calcium hypochlorite       (B)   Sodium hypochlorite

    (C)   Sodium chloride            (D)   Magnesium chloride

**125.** Mercerisation is carried on

    (A)   Cotton fabric             (B)   Polyester fabric

    (C)   Nylon fabric              (D)   Silk fabric

**126.** Degumming process is related to

    (A)   Silk                    (B)   Wool

    (C)   Nylon                 (D)   Acrylic

**127.** The hydrogen peroxide bleaching is carried at

    (A)   80 - 90°C            (B)   10°C

    (C)   150°C               (D)   300°C

**128.** Salt colours are

    (A)   Direct Dyes             (B)   Basic dyes

    (C)   Disperse Dyes           (D)   None of these

**Space For Rough Work**

**129.** Ice colours are

(A) Basic Dyes

(B) Acid Dyes

(C) Azoic Dyes

(D) None of these

**130.** Sulphur dyes are similar to

(A) Vat dyes

(B) Reactive dyes

(C) Disperse dyes

(D) None of these

**131.** Curing temperature is

(A) 140-160°C

(B) 10°C

(C) 20°C

(D) 30°C

**132.** Raising finish on fabric is

(A) Mechanical

(B) Chemical

(C) Electrical

(D) None of these

**133.** Crabbing process is related to

(A) Silk

(B) Cotton

(C) Wool

(D) None of these

**134.** Scroop finish is given to

(A) Silk fabric

(B) Cotton fabric

(C) Wool fabric

(D) Nylon fabric

**135.** The relative humidity is measured by

(A) Hygrometer

(B) Regain tester

(C) Moisture content analyser

(D) Pressure guage

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136. The dry mass of fiber is 50 gms & water content of fiber is 5 gms. Then moisture regain of fiber is

(A)  0.1                              (B)  10

(C)  0.9                              (D)  9

137. The rate of evaporation is uniform overtime, then the specimen takes 5 hours to evaporate 50% of moisture. How many hours are required to evaporate 80% of moisture ?

(A)  10 hours                      (B)  8 hours

(C)  12 hours                      (D)  20 hours

138. Which of the following is finer count

(A)  20 Ne                          (B)  50 Tex

(C)  60 Ne                          (D)  80 Tex

139. The analysis of comb sorter diagram yields

(A)  Span length                 (B)  Trash percentage

(C)  Uniformity ratio           (D)  None of these

140. High volume instrument measures

(A)  Fiber strength              (B)  Fiber length

(C)  Fiber fineness              (D)  All of these

141. CSP of combed yarn is approximately

(A)  1000                            (B)  1500

(C)  2800                            (D)  2200

142. Which of the following is universal yarn numbering system ?

(A)  English count              (B)  Metric count

(C)  Tex                            (D)  Denier

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**Space For Rough Work**

143. Indirect yarn number is

(A) Cotton count

(B) Metric count

(C) Tex

(D) Denier

144. If area of draped specimen and the area of bigger disc are equal then, drape coefficient is

(A) 1

(B) 0.5

(C) 0

(D) 0.75

145. Which of the following is relative measure ?

(A) Standard deviation

(B) Coefficient of variation %

(C) Mean

(D) Variance

146. The time to spray water in spray tester is

(A) 10 sec

(B) 20 sec

(C) 30 sec

(D) 50 sec

147. If the specimen of cotton fiber is stretched within yield point, then the recovery is

(A) 50%

(B) 75%

(C) 25%

(D) 100%

148. Instron works on the principle

(A) Pendulum lever

(B) Balance

(C) Strain guage

(D) Inclined plane

149. The smallest possible repeat for twill weave is

(A) $2 \times 2$

(B) $3 \times 3$

(C) $4 \times 4$

(D) $5 \times 5$
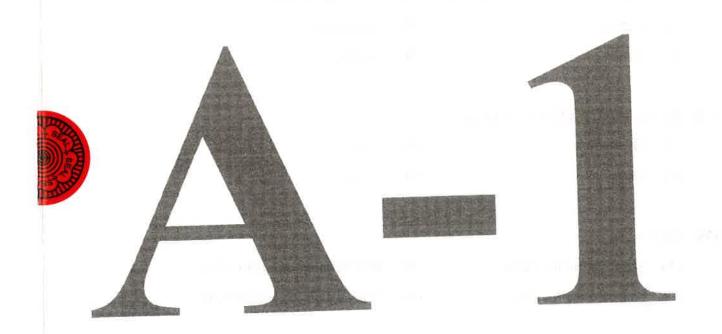
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**150.** Which weave has the simplest possible pattern of interlacing ?

(A) Satin
(B) Twill
(C) Plain
(D) Huck a back

**151.** Possible move numbers for 8 end sateen are

(A) 7 & 8
(B) 1 & 7
(C) 3 & 5
(D) 4 & 6

**152.** Crossing end and standard ends are associated with

(A) Huck a back weave
(B) Guaze & leno weave
(C) Double cloth
(D) Backed cloth

**153.** Huck a back weave is having _____ .

(A) Smooth surface
(B) Rough surface
(C) Very smooth surface
(D) None of these

**154.** The main advantage of the extra warp method is

(A) Prominance of fiber
(B) Prominance of yarns
(C) Productivity
(D) None of these

**155.** In warp backed cloth _____ series of warp and _____ series of wefts are required.

(A) 1 & 1
(B) 2 & 1
(C) 1 & 2
(D) 1 & 4

**156.** In self stitched double cloth _____ series of warp and _____ series of weft threads are required.

(A) 2 & 2
(B) 1 & 2
(C) 2 & 1
(D) 2 & 3

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**Space For Rough Work**

**157.** Velveteen is a

    (A) Weft pile structure         (B) Warp pile structure

    (C) Double cloth                (D) Backed cloth

**158.** Shaker motion is used in the production of

    (A) Brocade                  (B) Demask

    (C) Pile                      (D) Leno

**159.** Light is an

    (A) Electromagnetic wave motion     (B) Electronic wave motion

    (C) Sound energy              (D) None of these

**160.** Matt weave is derivative of

    (A) Plain                   (B) Twill

    (C) Satin                   (D) Mockleno

**161.** Knitting is the most common method of

    (A) Intralooping           (B) Inter weaving

    (C) Interlooping           (D) Extra looping

**162.** Knitting requires a relatively

    (A) Coarse yarn           (B) Smooth yarn

    (C) High twist yarn       (D) None of these

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163. A course is _____ row of loops.

   (A) Vertical                (B) Horizontal

   (C) Diagonal               (D) Multi directional


164. _____ is a horizontal row of cleared loops produced by one bed of adjacent needles.

   (A) Pattern Column         (B) Pattern making

   (C) Pattern grading         (D) Pattern row


165. The total number of needle loops in a square area measurement is known as

   (A) Course density         (B) Wale density

   (C) Stitch density          (D) Fiber density


166. The piece of yarn which joins one weft knitted loop to the next is called

   (A) Sinker loop            (B) Bearded loop

   (C) Overlap                 (D) Underlap


167. Which of the following knitting is most widely used ?

   (A) Warp knitting          (B) Weft knitting

   (C) Fiber knitting           (D) None of these


168. In weft knitting machine the yarns are fed through

   (A) Warp beam           (B) Pirn

   (C) Cones                  (D) Sectional warp beam

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**Space For Rough Work**

169. Which of the following knife is used to cut tight curves ?

    (A)  Round knife            (B)  Straight knife

    (C)  Drill knife              (D)  Notchers


170. In british standard class-I represent

    (A)  Lapped seam           (B)  Bound seam

    (C)  Super imposed seam     (D)  Decorative seam


171. Which of the following machine feed mechanism is the simplest and commonest ?

    (A)  Drop feed             (B)  Differential bottom feed

    (C)  Adjustable top feed     (D)  Unison feed


172. Kimono is associated with which of the following ?

    (A)  Collar                (B)  Sleeve

    (C)  Neck                (D)  Yoke


173. In care labelling bleaching instructions are given by

    (A)  Square               (B)  Circle

    (C)  Triangle           (D)  Semi circle


174. Which of the following measurements is used in custom tailoring ?

    (A)  Direct system         (B)  Chest system

    (C)  Industrial form       (D)  Drafting system

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**175.** Fusing of two sorts of interlinings to the outer fabric in one operation is in

(A) Reverse fusing 　　　　　　(B) Sandwich fusing

(C) Double fusing 　　　　　　(D) Single fusing

**176.** Which of the following pattern is used during cutting ?

(A) Working pattern 　　　　　　(B) Block pattern

(C) Draped pattern 　　　　　　(D) Master pattern

**177.** Dead man fold is associated with which of the following process ?

(A) Cutting 　　　　　　(B) Spreading

(C) Sewing 　　　　　　(D) Packing

**178.** An English equivalent of 'Seiketsu' is

(A) Standardise 　　　　　　(B) Shine

(C) Sort 　　　　　　(D) Sustain

**179.** SMV is

(A) Standard minute value 　　　　　　(B) Standard measurement value

(C) Standard multi value 　　　　　　(D) Standard movement velocity

**180.** Phulkari is associated with

(A) Sewing 　　　　　　(B) Spreading

(C) Embroidery 　　　　　　(D) Washing

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