

87/24

Question Booklet Sl. No.

Question Booklet Alpha Code

A

A

Total Number of Questions : 100

Time : 90 Minutes

Maximum Marks : 100

**INSTRUCTIONS TO CANDIDATES**

1. The Question Paper will be given in the form of a Question Booklet. There will be four versions of Question Booklets with Question Booklet Alpha Code viz. **A, B, C & D**.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the Question Booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a Question Booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same alpha code.
6. The Question Booklet will be sealed at the middle of the right margin. Candidate should not open the Question Booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him/her contains all the 100 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the Question Booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices **(A), (B), (C)** and **(D)** having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

A

87/24

A

-2-

1. The traditional process of extraction of coir fibre from coconut husk
  - A) Bleaching
  - B) Soaking
  - C) Beating
  - D) Retting
2. The first Coir Factory was established in
  - A) Kozhikode
  - B) Alleppy
  - C) Tirur
  - D) Kannur
3. What is the advantage of using a hard twist during the manufacturing process of curled coir rope ?
  - A) Creates a smoother surface
  - B) Increases the rope diameter
  - C) Improves the coir fibre's curl retention
  - D) Makes the ropes more flexible
4. Nanji is a \_\_\_\_\_ process.
  - A) Biological
  - B) Chemical
  - C) Physical
  - D) None of the above
5. Lac is
  - A) An aquatic flora
  - B) An animal dye
  - C) An ancient fruit
  - D) A herbal dye
6. When grading brown fibres, a higher numerical grade typically indicates
  - A) Lower fibre quality with shorter and coarser fibres
  - B) Finer and more valuable fibres
  - C) Fibres with higher lignin content
  - D) Ideal for applications requiring low moisture absorption
7. What is the primary factor that influences the abrasiveness of coir fibres ?
  - A) The fibre length
  - B) The presence of natural oils
  - C) The degree of curl in fibre
  - D) Fibre's moisture content
8. What is the ideal "material to liquor ratio" that is to be obtained for the efficient dyeing of coir fibres ?
  - A) 1 : 10
  - B) 1 : 20
  - C) 1 : 15
  - D) 1 : 5

9. Length of coir yarn in meter per Kg is  
 A) Scorage  
 B) Runnage  
 C) Fineness  
 D) Twist
10. Match the following :  
 1. MFEM  
 2. Anugraha loom  
 3. Willowing machine  
 4. Fibre drum  
 a. Combing  
 b. Defibering  
 c. Coir Geotextiles  
 d. Cleaning  
 A) 1 – b, 2 – c, 3 – d, 4 – a  
 B) 1 – a, 2 – b, 3 – c, 4 – d  
 C) 1 – d, 2 – b, 3 – a, 4 – c  
 D) 1 – c, 2 – a, 3 – b, 4 – d
11. The Botanical name of Coconut is  
 A) *Cocos nucifera*  
 B) *Cocos lucifera*  
 C) *Cocos malifera*  
 D) *Cocos mangnifera*
12. Which of these factors is not a major consideration when selecting a spinning method for coir yarn ?  
 A) Desired yarn properties  
 B) Type of coir fibre  
 C) Production speed and efficiency  
 D) Availability of skilled labour
13. Tenacity is a measure of Yarn's  
 A) Thickness  
 B) Colour consistency  
 C) Breaking strength  
 D) Moisture content
14. During the drying process of coir yarn, scorching can occur. Which statement about scorch is most accurate ?  
 A) A slight scorch can improve yarn strength and durability  
 B) Scorch is a desirable aesthetic feature of some coir yarns  
 C) Scorch significantly weakens the yarn fibres and reduces quality  
 D) Scorch primarily affects colour uniformity of yarn
15. Founders of Coir Industry in India  
 A) Henri Becquerel and Enrico Fermi  
 B) James Darragh and Henry Smail  
 C) James Chadwick and Max Born  
 D) Robert Boyle and Rosalind Franklin



87/24

24. What is the percentage of lignin content in retted coir pith ?  
A) 28.5                      B) 30                              C) 26.40                      D) 29
25. Which compound present in coir pith support the initial growth of fungus and act as co-substances for lignin degradation in the process of converting coir pith into valuable organic manure ?  
A) Cellulose              B) Lignin                      C) Hemi cellulose      D) Pectin
26. What is the Indian Specification Code for Coir Pith ?  
A) IS 17739 : 2022                      B) IS 17734 : 2022  
C) IS 15869 : 2020                      D) IS 15871 : 2009
27. For the selection of coir pith to manufacture coco peat, the electrical conductivity of coir pith should be below  
A) 1.5 ms/cm              B) 1 ms/cm                      C) 0.5 ms/cm              D) 1.2 ms/cm
28. Number of days required for conversion of hillocks of coir pith into organic manure using perforated PVC pipes is  
A) 30    B) 28  
C) 21    D) 20
29. Chemical cleaning of fabric prior to dyeing and printing is in the general sense is  
A) Bleaching                                      B) Softening  
C) Washing    D) Colouring
30. Which one of the following is a universal bleaching agent and used extensively for bleaching of cellulosic materials ?  
A) Sodium Silicate                                      B) Hydrogen Peroxide  
C) Bleaching Powder                                      D) Soda
31. The colour and their respective dyes from plant are oldest dyes and generally referred as  
A) Basic dyes              B) Natural dyes              C) Direct dyes              D) Acid dyes
32. Dyes obtained by heating aromatic organic compounds with sulphur and sodium or calcium sulphide are called  
A) Sulphur dyes      B) Azoic dyes              C) Vat dyes              D) Natural dyes

A

33. Which one of the following dyes are not commonly used in coir industry ?  
A) Basic dyes      B) Acid dyes      C) Vat dyes      D) Direct dyes
34. Where the percent exhaustion of dye is low, the amount of the dye taken up by the material dyed in a particular dye bath is added to the dye bath and a second lot dyed. This is known as  
A) Dye Bath Assistant      B) Shade of a dyeing  
C) Shade matching      D) Standing bath
35. Fastness grade of dye from Turmeric is  
A) 1      B) 2      C) 3      D) 4
36. In dyeing, material to liquor ratio is  
A) Ratio of volume of the material to volume of the liquor  
B) Ratio of mass of the material to mass of the liquor  
C) Ratio of the weight of the material to the weight of the liquor  
D) Ratio of the viscosity of the material to the viscosity of the liquor
37. Prescribed limit of BOD for effluents in wet processing of coir is  
A) 25      B) 27      C) 29      D) 30
38. In stencil plate printing, the selection of number of stencil plates depends upon  
A) Colour      B) Material      C) Pattern      D) Dyestuff
39. Which one of the following is Indian Standard for determination of colour fastness of textile materials to Rubbing ?  
A) IS : 765 – 1979      B) IS : 766 – 1988  
C) IS : 686 – 1985      D) IS : 2454 – 1985
40. The dyes belonging to the which reactive group has been used for the preparation of shades of coir yarn ?  
A) Highly      B) Medium      C) Less      D) Substantive
41. Type of yarn used as binding chain in Carnatic Mat  
A) 5 Ply Jute      B) 3 Ply Jute  
C) 2 Ply Jute      D) Sisal

87/24

42. What is the length of No. 2 size mats in inches ?  
A) 27  
B) 21  
C) 30  
D) 36
43. Which one in the given list is a frame mat ?  
A) Rod mat  
B) Mesh mat  
C) Creel mat  
D) Loop mat
44. Sinnet mat is also known as  
A) Hollander mat  
B) Chain mat  
C) Lovers knot mat  
D) Mesh mat
45. What is the drafting order of Fibre Mat ?  
A) 2-1-1, 3-1-1  
B) 1 4 3 2  
C) 1 3 2 3  
D) 1 3 1 2
46. Which one is a brush mat ?  
A) Creel mat  
B) Mesh mat  
C) Corridor mat  
D) Chain mat
47. The process aimed to cut the top portion of pile structure of mat uniformly is called  
A) Trimming  
B) Shearing  
C) Clipping  
D) Stencilling
48. Dutch Mat is the other name for  
A) Creel mat  
B) Corridor mat  
C) Carnatic mat  
D) Rope mat
49. In a rod mat, the brush or pile is formed out of  
A) Topping yarn  
B) Tight warp  
C) Slack warp  
D) Weft
50. WC1 is the quality mark of  
A) Chain mat  
B) Corridor mat  
C) Carnatic mat  
D) Mesh mat



51. Number of stencil plates required for a particular design on a mat depends upon  
A) Number of colours in the design      B) Length of mat  
C) Thickness of the mat                      D) None of the above
52. The woven mats are collected at the back side of the loom by operating  
A) Iron ratchet wheel                          B) Treadles  
C) Slay    D) Wooden ratchet wheel
53. The chemical used to convert coir needle felts into Coir Polymer Composite Boards is  
A) Phenol formaldehyde                      B) Cellulose  
C) Wax resin                                      D) Polyvinyl chloride
54. Coir needle felts are \_\_\_\_\_ fabric.  
A) Woven    B) Non-woven  
C) Moulded                                        D) None of the above
55. \_\_\_\_\_ is used as a supports for creepers belonging to climber class plants.  
A) Coco pole                                      B) Coir ply board  
C) Coir matting                                  D) Coir pith
56. Name of the fungus which helps in Pith Composting.  
A) Agaricus bisporous                          B) Pleurotus sajar caju  
C) Agaricus compositris                        D) Agaricus
57. Which is the most preferred wood for making Brushes ?  
A) Teak wood                                      B) Mango tree  
C) Coconut tree                                  D) Rose wood
58. The brush used for lavatory cleaning is  
A) Scrubbing Brush                              B) Banister Brush  
C) Commode Brush                                D) Form Cleaning Brush
59. The machine used for leveling the top portion of the brush so as to have uniform bristle surface.  
A) Top shearing machine                        B) Jig Saw  
C) Rotary Planer                                  D) Lathe







83. Which of the following IRC code books provides guidelines for the design and construction of roads using coir geo-textiles ?
- A) 128-2021
  - B) 129-2020
  - C) 129-2022
  - D) 127-2022
84. What is the quality specification for Coir Geo-textiles with a weight of 900 g/m<sup>2</sup> ?
- A) H2m9
  - B) H2m6
  - C) H2m5
  - D) H2m4
85. The Coir Coco lawn can be made out of the following materials
- A) Coir pith, coir fibre and lawn
  - B) Coir Geo-textiles, coir pith, coir needle felt and lawn
  - C) Coir fibre, Coir Geo-textiles, coir pith and lawn
  - D) None of the above
86. In a Pneumatic loom, which pedal is provided to cause a movement of the slay resulting in beating that is not manual, as in traditional handlooms ?
- A) Second
  - B) Third
  - C) First
  - D) Fourth
87. In which type of loom is the beating, shedding and winding done by power transmitted from a motor, while picking is done manually ?
- A) Fully Automatic Loom
  - B) Semi-automatic Loom
  - C) Pneumatic Loom
  - D) Jacquard Loom
88. Which loom could help in conserving trees, which are essential for maintaining ecology ?
- A) Dobby Loom
  - B) Metallic Handloom
  - C) Wooden Handloom
  - D) Jacquard Loom
89. In a pneumatic loom, which one of the following replaces the treadles ?
- A) Pedals
  - B) Shaft
  - C) Lamp rods
  - D) Compressor
90. The fundamentals of weaving are the following
- A) Warping, Splicing and Spooling
  - B) Beaming, Splicing and Spooling
  - C) Shedding, Picking and Beating
  - D) Drafting, Denting and Weaving

**87/24**

91. The first coir factory was established in the year
- A) 1917
  - B) 1859
  - C) 1857
  - D) 1903
92. According to IS 9308 Part 4, which of the following tests is not mandatory for evaluating the quality of curled coir rope ?
- A) Tensile strength test to determine breaking load
  - B) Twist count test to measure the number of twists per meter
  - C) Water absorption test to assess water retention capacity
  - D) Visual inspection for uniformity, colour and presence of defects
93. During decortication process of coir fiber for curled rope production, which factor most significantly impacts the final breaking strength of the rope ?
- A) Speed of decorticating machine
  - B) Type of decorticating blade used
  - C) Moisture content of the raw coir husk
  - D) Amount of dust removed during decortication
94. During coir needled felt preparation, what factor primarily determines the density of the final felt product ?
- A) Type of needle used
  - B) Linear density of the individual coir fibres
  - C) Speed at which the needles penetrate the coir mat
  - D) Number of needle passes made over the coir layer
95. As per IS 11060, the nominal thickness of a moulded rubberized coir mattress in Grade I quality should be
- A) Less than 10 mm
  - B) 10 mm to 15 mm
  - C) 15 mm to 25 mm
  - D) More than 25 mm
96. The Indentation load deflection test is used to measure
- A) Tensile strength of the coir fibre
  - B) Elasticity and resilience of the cushion
  - C) Fire resistance properties
  - D) Adhesion between rubber and coir

97. During compounding of NR latex, the primary purpose of adding dispersing agent is to
- A) Increase the viscosity of the latex
  - B) Prevent agglomeration of filler particles
  - C) Accelerate the vulcanization process
  - D) Improve the adhesion between latex and additives
98. As per IS 11060, the maximum moisture content permitted in moulded rubberized coir cushioning is
- A) Less than 5%
  - B) 5% to 10%
  - C) 10% to 15%
  - D) More than 15%
99. The process aimed to prevent the loss or gain heat by the insulated environment is known as
- A) Thermal insulation
  - B) Thermal softening
  - C) Thermal pulping
  - D) None of the above
100. Match the following :
- |                 |                                  |
|-----------------|----------------------------------|
| 1. Sulphur      | a. Modify physical property      |
| 2. Zinc Oxide   | b. Vulcanizing agent             |
| 3. Antioxidants | c. Cure activator                |
| 4. Filler       | d. Impart age resisting property |
- A) 1 – c, 2 – a, 3 – b and 4 – d
  - B) 1 – b, 2 – c, 3 – d and 4 – a
  - C) 1 – c, 2 – b, 3 – a and 4 – d
  - D) 1 – d, 2 – a, 3 – c and 4 – b
-

87/24

---

Space for Rough Work