

17469

21819

3 Hours / 100 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.

Marks

1. **Attempt any FIVE :**

20

- (a) State objectives of finishing of textiles.
- (b) State following terms with one example each :
 - (i) % expression
 - (ii) % Add on
- (c) Classify stiffeners used in finishing process with suitable examples.
- (d) Describe the method to evaluate crease recovery angle.
- (e) Justify the importance of drying and curing steps in resin finishing.
- (f) State objects of OBA finishing. Write the examples of OBA.
- (g) Define-limiting oxygen index. Write LOI of cotton, wool, silk and polyester.

2. **Attempt any TWO :**

16

- (a) Differentiate mechanical and chemical finishes. Explain the padding method of application with suitable example.
- (b) Write the classification of resins. With chemical structures explain the application procedure of DMDHEU resins on cotton.
- (c) Explain the method of evaluation of flame retardency by angular test method. Write the criteria for good flame retardant.

- 3. Attempt any TWO :** **16**
- (a) With neat labelled diagram explain the construction and working of stenter machine. Write its various applications.
 - (b) Explain the concept of wash-n-wear and durable press finishing. Write the standard procedure for determining DP rating of resin finished fabric.
 - (c) Write essential requirements of good antimicrobial finish. Describe any one method to test efficiency of antimicrobial finishing.
- 4. Attempt any TWO :** **16**
- (a) With neat labelled diagram, explain the working of any one calendering machine. Also explain various effects achieved by calendering.
 - (b) Explain mechanism of creasing and resin finishing for cellulosic with suitable example.
 - (c) Describe and explain the process of 'Mothproofing of wool'. Enlist the natural antimicrobial agents.
- 5. Attempt any TWO :** **16**
- (a) Write the properties and application procedure of cationic and non-ionic softeners.
 - (b) Write chemistry, mechanism and application methods of OBA on cotton.
 - (c) Explain the concept of Nano-finishing and write advantages and disadvantages of nano-finishes over conventional finishes.
- 6. Attempt any TWO :** **16**
- (a) Write a note on the types of softeners used for finishing of cotton, silk, polyester and wool fabrics.
 - (b) Explain the mechanism of flame retardancy. State the various factors affecting flame retardancy of textiles.
 - (c) Compare waterproof finishing and water repellent finishing. Write the chemistry involved in both types. Write the applications also.
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