

17469

15162

3 Hours / 100 Marks

Seat No.

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- Instructions :** (1) All Questions are *compulsory*.  
(2) Figures to the right indicate full marks.

**Marks**

**1. Attempt any FIVE :**

**20**

- What are the objectives of finishing ?
- Write a note on the classification of stiffeners.
- What are the applications of stiffeners at various stages of textile manufacturing ?
- Explain the procedure of evaluation of resin finishing efficiency by crease recovery angle method.
- What are the various methods of stripping of optical brightening agents ?
- What is Limiting Oxygen Index ? Give the LOI of cotton, wool, silk and polypropylene. Give the significance of LOI in textiles.
- Write the procedure of evaluating the flame retardancy efficiency of textiles by angular method.

**2. Attempt any TWO :**

**16**

- Write a detailed note on the classification of finishes ? Explain the exhaust method of application with suitable example.
- Explain the mechanism of solid phase flame retardancy and gas phase flame retardancy.
- What are the objectives of antimicrobial finishing ? What are the desirable properties of good antimicrobial finish ? Enlist the types also.

**3. Attempt any TWO : 16**

- (a) Write the properties and application procedure of cationic and non-ionic softeners.
- (b) Explain the concept of wash-n-wear and durable press finishing. Write the standard procedure for determining the DP rating of resin finished fabric.
- (c) Explain the mechanism of biopolishig of cotton. Write a note on the nanofinishing of textiles & its scope.

**4. Attempt any TWO : 16**

- (a) With neat labelled diagram, explain the working principle of calendaring machine. Also explain the various effects achieved.
- (b) Explain the mechanism of creasing of cotton. Explain the pre-cure and post-cure method of resin finishing.
- (c) Compare water proof finishing and water repellent finishing. Give the chemistry involved and the chemicals used in both types.

**5. Attempt any TWO : 16**

- (a) Write a note on the types of softeners used for finishing of cotton and polyester.
- (b) Enlist and explain the factors affecting the flame retardancy of textiles. Write down the essential and desirable requirements of flame retardants.
- (c) Write down the mechanism of anti-microbial finishes. Also write the standard method of evaluating antimicrobial finish efficiency.

**6. Attempt any TWO : 16**

- (a) With a neat diagram, explain the working principle of stenter. Also explain the concept of ‘% expression’ and ‘% add-on’.
  - (b) Write a note on the classification and properties of resins and catalyst used in resin finishing.
  - (c) Write down the chemistry, mechanism and application method of OBA on cotton.
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