

17469

16172

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. Solve any TEN of the following :

20

- (a) Enlist the objects of finishing.
- (b) List out any four uses of stenter.
- (c) State the role of catalyst in resin finishing.
- (d) Write the chemical structure of DMEU.
- (e) Give two examples of eco-friendly cross linking agents.
- (f) What is DP rating ? Write the significance of DP rating in resin finishing.
- (g) Define the term 'Saturation Whiteness'.
- (h) Which type of OBA's are suitable for application on polyester ? Why ?

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- (i) Enlist the essential requirements of good antimicrobial finish.
- (j) Write objects of antimicrobial finish.
- (k) Give any two examples of antimicrobial finish applied on cotton fabrics.
- (l) Write the objects of scroopy finish given to silk fabrics.
- (m) Write uses of water repellent and water proof finishing.
- (n) Which enzymes are suitable for the process of biopolishing ? Also state the conditions of biopolishing.

2. Solve any TWO of the following :

16

- (a) Describe the mode of action of cationic, anionic, non-ionic and reactive softeners on cotton fabric. Explain the conditions of softening.
- (b) Differentiate between exhaust method and padding method of finish application. Describe the working procedure of sueding machine.
- (c) Write the objects of calendering. Explain with neat, labelled sketch the compressive shrinking principle.

3. Solve any TWO of the following :

16

- (a) Write classification of softeners and stiffeners. Write any four important properties of silicone softener.

- (b) Describe with neat labelled diagram, construction and working of stenter machine. Write its importance in textile finishing.
- (c) Describe the method for evaluation of flame retardancy by angular method and discuss their parameters.

4. Solve any TWO of the following :

16

- (a) Explain with chemical reaction the mechanism of creasing and resin finishing of cotton fabrics.
- (b) Differentiate between anti-crease, wash-n-wear and durable press finishing. What is pre-cure and post-cure method of resin finishing ?
- (c) Explain the terms : softness & stiffness of the fabrics. Explain the methods for evaluations for softeners and stiffeners.

5. Solve any TWO of the following :

16

- (a) Explain the mechanism of fluorescence. State the conditions for application of OBA on cotton and polyester with machines required for application.
- (b) Explain mechanism of antimicrobial finishing. Describe the process of moth proofing of wool.
- (c) Write merits and demerits of nanofinishes over conventional finishes. Also write advantages and drawbacks of biopolishing process.

P.T.O.

6. Solve any TWO of the following :**16**

- (a) Describe mechanism of flame retardant finishing. Explain the factors affecting flaming of textiles.
 - (b) Write the examples of flame retardant finish suitable for cotton and polyester. Explain various modes of application of flame retardants on synthetic materials.
 - (c) Describe limitations of resin finishing. Explain the ways to minimise the drawbacks of resin finishing.
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