

17469

16117

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.
(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following:** **20**
- a) Give classification of finishing with one example of each.
 - b) Define the following terms with one example each.
 - (i) % Expression
 - (ii) % Add-on
 - c) Explain the importance of drying and curing of fabrics in resin finishing.
 - d) Describe the objects of OBA finishing. Write the chemical structure of any one OBA used for cotton fabrics.
 - e) Explain the mechanism of fluorescence.
 - f) State the conditions for application of OBA on cotton and polyester using exhaust method of application.
 - g) Write advantages and disadvantages of nanofinishes over conventional finishes.

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- 2. Attempt any TWO of the following:** **16**
- a) Describe the objects of finishing. Compare between exhaust and pad method of application for finish application.
 - b) Give the classification of resins. With structures, explain the application procedure and important properties of DMDHEU resins.
 - c) Explain the mechanism of flame retardancy. State the various factors affecting flame retardancy of textiles.
- 3. Attempt any TWO of the following:** **16**
- a) Explain mechanism of creasing and resin finishing.
 - b) With a neat labelled diagram, explain the construction and working of starter.
 - c) What is 'Limiting Oxygen Index'? State the importance of the same. Explain the Inclined method of evaluation of flame retardant finished textile.
- 4. Attempt any TWO of the following:** **16**
- a) Describe mechanism of burning of textile fibers. Explain thermal behaviour of cotton, polyester, Nylon and Acrylic fibre.
 - b) State the objectives of calendering, sueding, sanforinising and stentering.
 - c) Enlist and justify the limitations of resin finishing? What are eco-friendly cross linking agents? Give two examples and comment on the useability of the same in textile finishing industry.

- 5. Attempt any TWO of the following:** **16**
- a) Write essential requirements of a good antimicrobial finish. Describe any one method to test efficiency of antimicrobial finishing.
 - b) Classify softeners and stiffeners. Explain the method of application of reactive softener on cotton fabric.
 - c) Differentiate between water repellent and waterproof finishes. Enlist the parameters affecting the process of Biopolishing.
- 6. Attempt any TWO of the following:** **16**
- a) Explain the objects of softeners and stiffeners. Write the mode of action of softeners and stiffeners.
 - b) Explain the mechanism of antimicrobial finishing of textiles. Also describe the process of moth proofing of wool.
 - c) Describe the method for evaluation of softness and stiffness of fabrics. Also write the types of fabrics which requires application of softner and stiffner.
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