

17564

11920

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) Assume suitable data, if necessary.
- (6) 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) List the various methods of typing of polyester and explain any one.
- b) Write advantages and limitations of package dyeing.
- c) List the methods of dyeing of Nylon? Explain one of them.
- d) Explain the effect of heat setting at grey stage dyeing properties of Polyester.
- e) Write process sequence for dyeing of PLC blends by two bath method.
- f) Explain the function of retarders in the dyeing of acrylic.
- g) State advantages and limitations of H.T.H.P. beam dyeing machines.

P.T.O.

- 2. Attempt any TWO of the following:** **16**
- a) Explain the mechanism and process of dyeing of acrylic fibres with cationic dyes.
 - b) Describe dyeing of polyester by HTHP method. Also state the faults in the dyeing and suggest the remedies methods.
 - c) Explain the role of
 - (i) Levelling agent
 - (ii) Swelling agents in Nylon dyeing.Also explain dyeing of Nylon with acid dyes.
- 3. Attempt any TWO of the following:** **16**
- a) Describe the dyeing process of acrylics with disperse dyes. State various faults and its remedies in its dyeing.
 - b) Explain the distinct steps involved in dyeing of polyester by thermosol method. Also state its advantages and limitations.
 - c) Explain dyeing of Nylon with Acid Dyes. Also state faults in dyeing and its remedies.
- 4. Attempt any TWO of the following:** **16**
- a) Explain the concept of
 - (i) Rapid Dyeing Technique in the dyeing of polyester.
 - (ii) Mass Colouration of polyester.
 - b) Explain the steps involved in dyeing of Polyester/Viscose blend using two bath method of disperse and vat dye combination.
 - c) Explain the process for dyeing of Acrylic/Nylon blends fabrics. Give any two faults and their remedies in such dyeing.

5. Attempt any TWO of the following:**16**

- a) Explain the importance of
 - (i) Winding
 - (ii) Winding angle and
 - (iii) Package density in yarn dyeing.
- b) Explain the construction and working of continuous dyeing range with neat labelled sketch. Also mention its advantages and limitations.
- c) Explain the method for dyeing of Polyester/Wool blended fabric. State the faults and their remedies in dyeing Poly wool.

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

- a) With a neat and labelled diagram. Explain the construction and working of Jet dyeing machine. State faults is Jet dyeing and its remedies.
 - b) Explain the dyeing method for the dyeing of polyester and cotton blended fabric. Mention its faults and its remedies.
 - c) With a neat and labelled diagram explain the construction and working of HTHP beam dyeing machine.
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