

22673

12425

3 Hours / 70 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
  - (2) Illustrate your answers with neat sketches wherever necessary.
  - (3) Figures to the right indicate full marks.
  - (4) Assume suitable data, if necessary.
  - (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

**1. Attempt any FIVE :**

**10**

- (a) Clarify the term 'Bio Technology'.
- (b) Draw the process flow chart for terry towel fabric processing.
- (c) Enlist the names of natural dyes suitable for textiles.
- (d) Define the term Knitting.
- (e) Suggest any four machines used for knit fabric processing.
- (f) Write the trade names of neutral fixing reactive dyes.
- (g) Draw a diagram of 2-dip-2-nip padding mangle.

**2. Attempt any THREE :**

**12**

- (a) Describe the mechanism of desizing by enzyme action for Grey cotton.
- (b) Suggest the particulars required for manufacturing of terry towel.
- (c) Compare Knit fabrics with woven fabrics in four points.
- (d) Explain any one application method of vat dyes on cotton fabrics.



- 3. Attempt any THREE :** **12**
- (a) Classify the enzymes on the basis of application for textiles.
  - (b) Identify any two problems and their remedies in terry towel processing.
  - (c) With suitable sketch explain the working process of compacting machine for knit fabric.
  - (d) Justify the use of auto dosing in continuous dyeing system.
- 4. Attempt any THREE :** **12**
- (a) Explain the concept of 'Bio-Scouring' for grey cotton fabric.
  - (b) Suggest the precautions to be taken during processing of knitted fabrics.
  - (c) Compare pigments with dyes for coloration of Textiles.
  - (d) State advantages and limitations of Reactive dyes.
  - (e) Describe the working of E-control dyeing machine.
- 5. Attempt any TWO :** **12**
- (a) Suggest the enzymes suitable for Bleaching process and explain in detail the bio-bleaching process with suitable parameters for cellulose.
  - (b) Describe the dyeing process for cotton terry towel with suitable dyes and process parameters.
  - (c) Explain the concept of Digital printing by Drop on Demand (DOD) method.
- 6. Attempt any TWO :** **12**
- (a) Justify that Bio-Technology is advanced technique for processing of Textiles than conventional methods.
  - (b) Describe in detail the dyeing process for cotton knitted fabric with suitable reactive dyes on soft flow machine.
  - (c) Describe the construction and working of Air-flow dyeing machine with suitable sketch.
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