

22673

22232

3 Hours / 70 Marks

Seat No.

--	--	--	--	--	--	--	--

- 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) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following :

10

- (a) List four advantages of using enzymes in textile processing.
- (b) State any four uses of terry towels.
- (c) Enlist four essential properties of terry towels.
- (d) Recite any four end uses of knitted fabrics.
- (e) State types of fibres used for manufacturing knitted fabrics.
- (f) State four reasons for advancements in processing machines.
- (g) Define 'E control' dyeing.

2. Attempt any THREE of the following :

12

- (a) Describe mechanism of enzyme action during scouring process carried out on 100% cotton poplin.
- (b) Describe process control parameters with their norms in enzyme desizing of 100% cotton voile fabrics.
- (c) With flow chart, describe process sequence of terry towels processing.
- (d) Explain any two chemical finishes given to 100% cotton terry towels.



- 3. Attempt any THREE of the following :** **12**
- (a) Illustrate the bleaching of cotton fabric by using appropriate enzymes along with process conditions.
 - (b) Explain the purposes of deactivation of the enzyme in bleaching process with justification.
 - (c) Suggest the precautions to be taken while dyeing 100% cotton terry towels.
 - (d) Differentiate between printing of woven fabric and knitted fabric on any four points.
- 4. Attempt any THREE of the following :** **12**
- (a) Elaborate the continuous process of enzymatic Souring with the help of a neat labelled diagram.
 - (b) Draw a neat labelled diagram of compacting machine & explain the principle involved in it.
 - (c) With neat labelled sketch, describe the mercerization of knitted fabrics.
 - (d) Elaborate on the different sources of natural dyes and enlist any two advantages and limitations each.
 - (e) Describe the developments observed in dyeing machine to reduce liquor ratio and state their merits.
- 5. Attempt any TWO of the following :** **12**
- (a) Explain relevant ecological issues related to textile dyeing of celluloses using vat dyes. Suggest its ecofriendly alternatives.
 - (b) Justify the use of non sulphide reducing agents in eco-friendly Sulphur dyeing.
 - (c) With neat sketch explain measures taken for uniform temperature in stenters.
- 6. Attempt any TWO of the following :** **12**
- (a) Describe developments in reactive dyes with respect to ecology and fastness property with due justification.
 - (b) Elaborate the different types of machines used for the dyeing of knitted and terry towel fabrics.
 - (c) Elaborate the concept of laser engraving for the printing of 100% cotton by rotary screen printing machine.
-