

22673

24225

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) 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) Describe the term 'Enzyme'.
- (b) List the names of Enzymes used in pretreatments of textiles.
- (c) List the factors affecting on quality of terry towels.
- (d) Draw the process flow sequence for processing of knitted fabrics.
- (e) Give the brief classification of reactive dyes.
- (f) Draw the neat labelled sketch of 2 dip – 2 nip padding mangle.
- (g) List names of dyeing machines used for synthetic fabrics.

2. Attempt any THREE of the following :

12

- (a) Explain the steps involved in Enzyme manufacturing process.
- (b) Describe the mechanism of Enzyme Desizing and explain any one method.



- (c) Describe the essential properties of terry towel fabric.
- (d) Explain the precautions required while processing of knitted fabric.

3. Attempt any THREE of the following : 12

- (a) Describe the chemical reactions taking place while scouring of cotton fabric.
- (b) Explain mechanism of Enzymatic scouring process.
- (c) Elaborate the process for pretreatment of terry towels.
- (d) Explain the process parameters for reactive dyeing of knitted fabric in soft flow dyeing machines.

4. Attempt any THREE of the following : 12

- (a) Explain the object of compacting process for knitted fabrics with neat sketch.
- (b) Explain advantages of Bifunctional Reactive dyes over monofunctional reactive dyes.
- (c) Write the steps involved in Sulphur dyeing process. Give the names of two non-sulphide reducing agents.
- (d) Describe the concept of 'Dispenser' (Auto dosing) in modern dyeing systems.
- (e) Elaborate the modifications done for ultra low liquor dyeing machines for energy saving.

5. Attempt any TWO of the following : 12

- (a) Suggest the mechanism of Enzymes action and decomposition products in various wet processing stages, also state importance of enzyme deactivation.
- (b) Suggest the chemical finishing treatments needed for Terry towels, also elaborate the finishing processes.
- (c) Justify the use of new generation reactive dyes in reducing water pollution caused by wet processing of textiles.

6. Attempt any TWO of the following :**12**

- (a) Suggest the process sequence for pretreatment of Knitted fabric in Tubular form, also elaborate the chemical formulation of pretreatment process.
 - (b) Elaborate developments in modern stenters considering
 - (i) Pinning system
 - (ii) Selvedge locking system
 - (c) Elaborate developments in printing machines with respect to digital printing machine.
-

