16172 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) 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.
- (8) Use of steam tables, logarithmic, Mollier's chart is permitted.

Marks

1. Attempt any FIVE of the following:

 $4 \times 5 = 20$

- (a) Enlist the points which are favourable for setting of modern processing machines.
- (b) Give the production norms for singeing scouring machines.
- (c) Enlist the production norms for stenter and drying ranges.
- (d) State the method to calculate water consumption.
- (e) Enlist the names of various fuels used in dye house and explain any one in detail.
- (f) Write the importance of positioning lights in department.
- (g) Describe the cause of fire hazards in textile industry.

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2. Answer any TWO of the following:

 $8 \times 2 = 16$

- (a) Describe the precautions taken while selections of sites for a processing house.
- (b) Draw a layout of modern process house, also write importance of proper layout.
- (c) Enlist and describe any four material handling methods used in processing industry.

3. Answer any TWO of the following:

 $8 \times 2 = 16$

- (a) Write the production norms for jigger and jet dyeing machine.
- (b) Write the production norms for flat bed and rotary printing m/c.
- (c) Discuss the production norms of a finishing machine.

4. Answer any TWO of the following:

 $8 \times 2 = 16$

- (a) Describe the methods to conserve and reuse water in process house.
- (b) Write water consumption norms in pretreatment process and control of water consumption.
- (c) Write steps to minimise the consumption of water in continuous dyeing range and continuous bleaching range.

5. Answer any TWO of the following:

 $8 \times 2 = 16$

(a) Calculate energy consumption norm for 08 colour flat bed and 16 colour rotary screen printing machine.

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- (b) Calculate the energy consumption of 02 tonne kg capacity jigger dyeing and 1000 kg jet dyeing machine for dyeing using H brand reactive dyes and disperse dyes by HTHP method respectively.
- (c) Enlist and describe energy consumption in finishing process.

6. Answer any TWO of the following:

 $8 \times 2 = 16$

- (a) Write lighting requirements in processing department, also write lighting norms.
- (b) (i) State the importance of safety in processing house.
 - (ii) List and draw various safety symbols used in process house.
- (c) Write the causes and remedies of human accidents in textile processing units.

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