

22466

24225

3 Hours / 70 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 :**

**10**

- (a) Define the term 'Global warming'.
- (b) Enlist the different types of pollution.
- (c) State the different eco-systems addressed critically in textile processing sector.
- (d) Recite the chemicals used in the determination of chloride content.
- (e) Write the objective of different types of waste water treatment.
- (f) Draw a flow chart of a textile wet processing effluent treatment plant.
- (g) Justify in brief, need of ETP in textile wet processing.

**2. Attempt any THREE of the following :**

**12**

- (a) Illustrate the effect of textile processing on pollutants on human health.
- (b) Compute the pollutants added in water during desizing and scouring.



- (c) Compare between physical and chemical methods of effluent testing (any four points).
- (d) Justify the importance of effluent treatment plant in textile wet processing unit.

**3. Attempt any THREE of the following :**

**12**

- (a) Demonstrate the cascading effects of ozone layer depletion on forest and Grassland ecosystem.
- (b) Explain 'Plume Behaviour' and different plume characters.
- (c) Demonstrate the procedure to determine the water quality parameters of bleaching waste water.
- (d) Describe the procedure involved the primary waste water treatment from a textile processing unit.

**4. Attempt any THREE of the following :**

**12**

- (a) Elaborate with 'Cause & Effect' diagram, effect of deforestation on different eco-systems.
- (b) Outline the toxicological effect of chemicals on the environment used in dyeing of textiles.
- (c) Illustrate the procedure to measure noise pollution in textile processing using noisemeter.
- (d) Elaborate the procedure of determining the Total solids in textile effluent.
- (e) Illustrate the activated sludge process treatment of effluents with the help of a neat labelled diagram.

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

**12**

- (a) Outline the purpose of designing ISO 14000 series. Elaborate the norms laid down in this series.
- (b) Differentiate between Noise pollution and Air pollution on any six points.
- (c) Analyse the remedies to control water pollution in textile wet processing industry.

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

- (a) Compare between 'Chemical Oxygen Demand (COD)' and 'Biological Oxygen Demand (BOD)' of textile wet processing effluent on any six points.
  - (b) Outline the procedure of determining the temporary hardness and permanent hardness of textile wet processing effluent water.
  - (c) Outline the design of reverse osmosis plant and a thermal evaporator plant used in the treatment of textile wet processing effluent.
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