

22466

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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. **Attempt any FIVE :**

10

- (a) Define the term 'global warming'. List the causes of global warming.
- (b) Explain the term deforestation in brief.
- (c) List the various air pollutants released by textile industry.
- (d) Enlist the water pollutants added in water resources by textile industry.
- (e) State the water quality parameters required to test before processing of textiles.
- (f) State physical methods used for testing textile effluent.
- (g) Name the primary treatments given to the waste water.

2. **Attempt any THREE :**

12

- (a) Explain the term ozone layer depletion with suitable diagram. Write its effect on different eco-systems.



- (b) Describe following types of plume characters with the help of suitable diagram :
- (i) Fanning plume
 - (ii) Looping plume
- (c) Draw a flowchart describing the procedure of determining dissolved oxygen in given textile effluent.
- (d) Differentiate between physical method and chemical methods of testing the textile effluent.

3. Attempt any THREE :

12

- (a) Explain the term 'pollution'. State the various types of pollution. Identify the pollutants added in nature by textile industry.
- (b) Classify the air pollutant added by different sources in textile industry.
- (c) Compare following water quality parameters of the effluent released from desizing Process, bleaching process and dye house.
- (i) TS
 - (ii) COD
 - (iii) BOD
- (d) Draw basic design of ETP plant. Label the components in ETP plant with their function.

4. Attempt any THREE :

12

- (a) Textile waste water sample is collected from bleaching house where hypochloride is used as bleaching agent. Suggest the test method for testing the waste water sample. Describe the procedure for the same.

- (b) Select the test methods for testing desizing waste water. Describe evaporation method for finding TDS of desizing effluent.
- (c) Draw a labelled diagram showing a sequence of primary treatments given to waste water. Mention role of each primary treatment in brief.
- (d) Explain the role of tertiary waste water treatment.
- (e) Describe electrochemical process for treating waste water.

5. Attempt any TWO :

12

- (a) Identify the toxic component added in water during dyeing process in which azo dyes are used.

Explain the adverse effect of such component on human health.

Suggest the remedies to put control on release of azo dyes in water resources.

- (b) Suggest the remedies to control water pollution and maintain norms of pollution control board for dye house waste water.
- (c) Identify the source of noise generated by various sectors in textile industry. Suggest the remedies to control the same.

Identify the highest polluting unit in textile industry adding air pollutants in environment. Suggest the remedies to control the same.

6. Attempt any TWO :

12

- (a) Explain the role of secondary treatments in ETP plant. Draw the labelled diagrams

indicating any two oxidation techniques used in ETP plant.

- (b) Explain the role of ISO 14000 series

List the norms designed by ISO 14000 which must be followed while planning textile unit.

- (c) Describe the effect of textile pollutants on human and aquatic life.

Suggest the remedies to control water pollution.
