

22466

22232

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) Figures to the right indicate full marks.

Marks

1. Answer any FIVE of the following :

5 × 2 = 10

- (a) Define :
 - (i) Environment
 - (ii) Ecosystem
- (b) Define :
 - (i) Pollution
 - (ii) Pollutant
- (c) Define 'noise'. State 'unit' of measuring noise.
- (d) Define :
 - (i) Scouring
 - (ii) Finishing
- (e) Define 'pH'. Represent pH scale.
- (f) Explain meaning of 'tertiary' water treatment.
- (g) Define Coagulation. Name two coagulants used.



2. Answer any THREE of the following :**3 × 4 = 12**

- (a) Explain 'purpose' of designing 'ISO 14000 series'.
- (b) Describe any two 'plume characteristics'.
- (c) (i) Explain the term 'desizing'.
(ii) Explain nature of waste water from desizing.
- (d) Draw a neat sketch of basic 'design' of ETP and state 'need' of the plant.

3. Answer any THREE of the following :**3 × 4 = 12**

- (a) Select the relevant procedure for measuring noise using 'noise meter'.
- (b) Describe effect of 'textile pollutants' on 'aquatic life'.
- (c) Distinguish in general between : Physical-and chemical-method of testing.
- (d) Describe method of 'flocculation'. Name two widely used flocculants.

4. Answer any THREE of the following :**3 × 4 = 12**

- (a) (i) Define global warming. **1**
(ii) Explain causes of global warming. **3**
- (b) State 'sources of noise pollution' as caused by textile industry.
- (c) (i) Select the relevant process reaction for determination of 'chloride content' of waste water from 'bleaching process'. **3**
(ii) State 'limit' set for the chloride content. **1**
- (d) Select the relevant procedure to determine 'hardness' of water.
- (e) Describe with an example 'photocatalytic degradation' in tertiary water treatment.

5. Answer any TWO of the following :**2 × 6 = 12**

- (a) Suggest 'causes' and 'consequences' of 'deforestation' on different ecosystems with justification.
- (b) Explain with examples effect of 'air pollutants' emitted by textile industry on
 - (i) Human health, (ii) vegetation.
- (c) (i) Name sources of 'turbidity' in water. **2**
 - (ii) Select a relevant method to 'determine' turbidity in water. **4**

6. Answer any TWO of the following :**2 × 6 = 12**

- (a) Compare 'germination rate' of seeds using different 'waste water' samples from a 'dye house'.
 - (b) Explain 'norms' as per 'Pollution Control Board' for water pollutants added from 'Mercerising process'.
 - (c) (i) Explain principle of 'R.O'.
 - (ii) Draw outline design of R.O.
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