

P. Pages : 2

Time : Three Hours

**AW - 3395**

Max. Marks : 80

- Notes :
1. Answer **three** question from Section A and **three** question from Section B.
 2. Due credit will be given to neatness and adequate dimensions.
 3. Assume suitable data wherever necessary.
 4. Diagrams and chemicals equations should be given wherever necessary.
 5. Illustrate your answer necessary with the help of neat sketches.
 6. Discuss the reaction, mechanism wherever necessary.
 7. Use of pen Blue/Black ink/refill only for writing the answer book.

SECTION – A

1. a) What are the characteristic of lakes? Discuss the common environmental problem in lakes. 7
b) What are agencies working in India for prevention and control of pollution? Discuss in details. 7

OR

2. a) Discuss role of chlorofluorocarbon in depletion of ozone layer. 7
b) Discuss by product and salvageable waste in details. 7
3. a) Describe air prevention and control of pollution act 1981. 7
b) Describe the “MINAS” and plan of action for sugar industries. 6

OR

4. a) Draw neat sketches of different types of micro-organisms present in water. 5
b) How will you determine dissolved oxygen? 8
5. What is osmosis and reverse osmosis? How we can remove pollutants from waste water by using reverse osmosis. 13

OR

6. a) What is neutralization? Discuss chemical coagulation in details. 7
b) What is difference between aerobic and anaerobic lagoons? Discuss anaerobic Lagoons in details. 6

SECTION – B

7. a) Explain hazardous waste with suitable examples. Give their types. 7
b) What are the reusable wastes? Discuss them in details. 7

OR

8. a) How we can recycle waste in chemical industry? Give suitable example. 7
b) Describe dissolved air floatation system for sludge treatment. 7
9. a) Explain the terms. 6
i) Floating bed scrubber. ii) Venturi bed scrubber.
b) Describe fabric filters with neat sketch. 7

OR

10. a) Discuss catalytic reduction of NO_x using methane. 7
b) Explain following terms. 6
i) Critical field. ii) Particle changing.
11. Draw the manufacture process of cement industry. What are the sources of waste from cement industry? Describe the treatment given to gaseous and liquid waste. 13

OR

12. Give sources, characteristics of waste from sugar industry. With a neat flow diagram explain the pollution control measures in sugar industry. 13
