



Progressive Education Society's  
Modern College of Arts, Science & Commerce Ganeshkhind, Pune – 16  
(Autonomous)  
End Semester Examination: OCT/NOV 24  
Faculty: Science and Technology

Program: (BScGen03) Semester: V  
Program (Specific): General B. Sc.  
Class: T.Y. B.Sc.  
Name of the Course: Environmental Chemistry  
Course Code: 24-CH-511(A)  
Paper:

SET: A  
Course Type: SEC- II  
Max. Marks: 35

Time: 2Hr

**Instructions to the candidate:**

- 1) *There are 4 sections in the question paper. Write each section on separate page.*
- 2) *All Sections are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Draw a well labelled diagram wherever necessary.*

**SECTION: A**

**Q1) Explain the following.**

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- i) What is water pollution?
- ii) Define  $pE$ .
- iii) What is self-purification?
- iv) Define COD.
- v) What is contaminant?

**Q2) Answer Any FOUR of the following.**

**4**

- i) What is surfactant?
- ii) What is hardness of water?
- iii) What is denitrification?
- iv) What is electrodialysis?
- v) Define 'Sludge'.
- vi) Give two examples of contaminant.

### SECTION: B

**Q3) Answer Any FOUR of the following.**

**8**

- i) Explain the concept pollutant.
- ii) Discuss the microbially mediated aquatic reactions involving Nitrogen transformations.
- iii) Explain Secondary waste treatment.
- iv) Explain the term 'pathway of pollutant' giving example.
- v) Write short note on 'Waste prevention'.
- vi) Give relation between ppm and ppb/ppt/pphm.

### SECTION: C

**Q4) Answer Any FOUR of the following.**

**8**

- i) Explain in short water pollution due to sediments.
- ii) Illustrate the oxygen cycle.
- iii) What is 5 days BOD test?
- iv) Explain 'Sampling of Water'?
- v) Write short note on pH of sea water.
- vi) What are Humic substances? Explain their role in nature.

### SECTION: D

**Q5) Attempt any TWO of the following**

**10**

- i) Explain the term environment and describe the segments of environment briefly.
- ii) Write short note on acid mine drainage.
- iii) Write a note on speciation of Hg in air.
- iv) Discuss the water quality w.r.t. pH.