

Reg. No. :

Name :

Fifth Semester B.Sc. Degree Examination, December 2023

First Degree Programme under CBCSS

Chemistry

Open Course

CH 1551.3 : ENVIRONMENTAL CHEMISTRY

(2020 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions in a word or **one** or **two** sentences. Each question carries **1** mark.

1. The lowermost layer of atmosphere is _____.
2. Define pollutant. Give any example.
3. CO combines with haemoglobin of red blood corpuscles to form _____.
4. What is e-waste?
5. What is *fly ash*?
6. What are freons?
7. The excess nourishment of water body leading to its destruction is called _____.

8. What is the action of zeolites on hard water?
9. What are VOCs?
10. The Montreal Protocol is related to the protection of _____.

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions. Each question carries **2** marks.

11. How do automobiles cause air pollution?
12. What is photochemical smog?
13. Explain the major detrimental consequences of enhanced greenhouse effect.
14. Mention two detrimental effects of the pollution by the oxides of nitrogen.
15. What is BOD?
16. Why are plastics called persistent pollutants?
17. Write a note on Chernobyl incident.
18. What is thermal pollution? How does it arise?
19. What are primary pollutants? Give one example.
20. Write the consequences of marine pollution.
21. What is the goal of Environment Protection Act?
22. Write a note Rio-declaration.

(8 × 2 = 16 Marks)

SECTION – C

Answer any **six** questions. Each question carries **4** marks.

23. Discuss the causes, effects and consequences of ozone layer depletion.
24. How to remove the hardness of water?
25. Discuss the sources and consequences of water pollution by fertilizers.
26. Illustrate water pollution by heavy metals with examples.
27. Discuss the adverse effect of plastic pollution.
28. Write a note on *Bhopal disaster*.
29. Explain triple R in waste management?
30. Discuss the sources and consequences of pollution by various oxides.
31. Explain the main concepts of green chemistry?

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions. **Each** question carries **15** marks.

32. Discuss the following :
 - (a) Acid rain
 - (b) Global warming
 - (c) Greenhouse effect
33. Write a note on the following:
 - (a) Radioactive pollution
 - (b) Soil pollution
34. Write an essay on waste reduction, waste separation, storage and disposal.
35. Explain any five major Laws and Acts to protect the environment.

(2 × 15 = 30 Marks)