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S - 1674

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

P.T.O.

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

 $(10 \times 1 = 10 \text{ Marks})$

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.

 $(8 \times 2 = 16 \text{ Marks})$

SECTION - C

Answer any six questions. Each question carries 4 marks.

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

 $(6 \times 4 = 24 \text{ Marks})$

SECTION - D

Answer any two questions. Each question carries 15 marks.

- Discuss the following: 32.
 - (a) Acid rain
 - (b) Global warming
 - Greenhouse effect (c)
- 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. $(2 \times 15 = 30 \text{ Marks})$