

**E 3068**



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Reg. No.....

Name.....

**UNDERGRADUATE (C.B.C.S.S.) EXAMINATION, APRIL 2022**

**Fifth Semester**

Open Course—ENVIRONMENTAL CHEMISTRY

(Offered by the Board of Studies in Chemistry)

[2013—2016 Admissions]

Time : Three Hours

Maximum Marks : 80

**Part A**

*Answer all questions.*

*Each question carries 1 mark.*

1. Name the energy resources in order of their consumption.
2. In humans, methyl mercury is monotoxic than inorganic mercury. Why ?
3. What are the green house gas ?
4. What is meant by photochemical smog ?
5. What are the units of noise pollution ?
6. What is humic material ?
7. What is meant by permeability of soil ?
8. Mention two nitrogen fixing fertilizers.
9. What are freons ?
10. What is fly ash ?

(10 × 1 = 10)

**Part B**

*Answer any eight questions.*

*Each question carries 2 marks.*

11. Account the main toxic effect of CO in the body ?
12. Explain biochemical methylation.
13. Write down the mechanism of acid rain.
14. What is meant by Eutrophication ?
15. What is free chlorine ?
16. COD of sewage is higher than BOD. Why ?
17. Mention some important characteristic of organic matter in soil.

**Turn over**





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18. Write down the two control method of CO pollution.
19. Discuss the major composition of earth's atmosphere.
20. Distinguish between Hard water and Soft water.
21. Discuss some ways to reduce plastic waste.
22. Define waste management.

(8 × 2 = 16)

### Part C

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

23. Explain with examples, the effect of toxic chemicals on enzyme.
24. Explain the mechanism of the action of insecticide.
25. Discuss ozone hole and its effect on human health.
26. Write a note on Bhopal and Chernobyl disaster.
27. Explain the environmental impact by Cd and Pb pollutant in water.
28. Explain the difference between Monitoring and analysis of environmental pollutant.
29. Suggest way to reduce urban air-pollution.
30. Write a note on non-conventional energy sources.
31. What are the major imbalances caused by deforestation ? Explain.

(6 × 4 = 24)

### Part D

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

32. Explain waste water treatment technique.
33. (a) How is fluoride, chloride sulphide and phosphate in water analysed ?  
(b) Differentiate between COD and BOD.
34. (a) Write a note on water quality standards and water quality index.  
(b) Briefly discuss nuclear energy. What are the benefits and limitations ?
35. Explain the principles and strategies of green chemistry.

(2 × 15 = 30)

