

Reg. No .....

Name .....

23U507

**B.Sc. DEGREE END SEMESTER EXAMINATION : NOVEMBER 2023**

**SEMESTER 5 : CHEMISTRY**

**COURSE : 19U5CRCHE05 : ENVIRONMENTAL STUDIES**

*(For Regular 2021 Admission and Supplementary 2020/2019 Admissions)*

Time : Three Hours

Max. Marks: 75

**PART A**

**Answer any 10 (1 marks each)**

1. Write down the expression for decay constant of a nuclear reaction.
2. What are the different applications of fullerenes.
3. Ouch ouch disease was due to .....poisoning
4. Mention any two problems associated with natural resources?
5. ....is an example of primary pollutant.
6. The dimensions of trenches are-----
7. Mention three effects of mining.
8. Give any two types of Natural Ecosystem.
9. What is atom economy?
10. What are secondary consumers?
11. What is carbon nanotube?
12. How radioactive carbon C<sup>14</sup> is generated in atmosphere?
13. Define green cess.

**(1 x 10 = 10)**

**PART B**

**Answer any 10 (2 marks each)**

14. What are Autotrophs and Heterotrophs?
15. Explain the major properties of carbon nanotube.
16. What is designing safer chemicals in green chemistry?
17. Comment on the toxic effects of organomercurials.
18. What are Gm crops?
19. What is biomagnification?
20. What are the major benefits of Dams?
21. What are the causes of land Degradation?
22. What are Edaphic factors?
23. Give an example of bottom-up approach for the preparation of nanomaterials?
24. What is the principle behind radiocarbon dating?
25. Give any two reason for the displacement of people
26. List out two factors affecting watersheds

**(2 x 10 = 20)**

**PART C**

**Answer any 5 (5 marks each)**

27. Discuss the significance of Food chains and Food webs.
28. What are quantum dots? What properties of quantum dots allow them to be used in medicine?
29. Write a short note on Radio-active disintegration series.
30. Write a note about Droughts.
31. Give an account on toxic chemicals in the environment
32. Explain Forest Conservation act in 1980
33. What are the twelve principles of green chemistry?
34. Discuss the biochemical effects of pesticides.

**(5 x 5 = 25)**

**PART D**

**Answer any 2 (10 marks each)**

35. Explain on nuclear waste and its impact on environment.
36. Elaborate on the role of mineral resources in a healthy environment. How are they exploited? Explain the drastic effects of extraction of mineral resources?
37. What is acid rain? Explain its formation, adverse effects and control measures.
38. Explain in detail the structure and function of an ecosystem.

**(10 x 2 = 20)**