K23P 0464

Reg. No. : .....

Name : .....

II Semester M.Sc. Degree (CBSS – Reg./Supple./Imp.)
Examination, April 2023
(2019 Admission Onwards)
CHEMISTRY
CHE2E.01 : Environmental Chemistry and Disaster Management

Time : 3 Hours Max. Marks : 60

SECTION – A

Answer **all** questions in **one** word or **one** sentence. **Each** question carries **1** mark.

1. What is a pollutant ?
2. Which atmospheric region contains ozone layer ?
3. What is particulate matter ?
4. What is the acceptable range of pH as per Indian standards of drinking water ?
5. What type of pollution causes acid rain ?
6. What is disaster management ?
7. What is thermal pollution ?
8. What is an environmental disaster ? **(8×1=8)**

SECTION – B

Answer **any eight** questions. Answer may be in **two** or **three** sentences. **Each** question carries **2** marks.

9. Define COD.
10. What are the different components of the environment ?

P.T.O.

11. What are the major sources of nitrogen oxides ?

12. What are the major sources of radioactive pollution ?

13. What is soil pollution ?

14. What are pandemics ?

15. What are primary air pollutants ? Give an example.

16. What is disaster risk management ?

17. How disasters are classified ? Explain.

18. Differentiate between GIS and GPS.

19. Define disaster mitigation.

20. What are the environmental impacts of natural disasters ? **(8×2=16)**

SECTION – C

Short paragraph questions. Answer **any four** questions. **Each** question carries **3** marks.

21. Discuss about Bhopal disaster.

22. Explain eutrophication.

23. Explain greenhouse effect and its consequences.

24. Write a note on remote sensing for disaster management.

25. What is smog ? Distinguish between classical smog and photochemical smog.

26. What are ion selective electrodes ? Explain their working principle.

27. Discuss about the types and effects of urban disasters.

28. Write a note on the consequences of acid rain. **(4×3=12)**

SECTION – D

Essay type questions. Answer **four** questions. **Each** question carries **6** marks.

29. A) Give an account on :
    i) Acid rain and its formation.
    ii) Ozone layer depletion and its consequences.

    OR

    B) Give an account on :
    i) Air pollutants and their classification.
    ii) Control of air pollution.

30. A) Discuss about sewage treatment processes.

    OR

    B) Discuss about water quality classification and water quality standards.

31. A) Explain the principle of AAS and X-ray fluorescence spectrometer. Discuss how they can be used to analyse environmental samples.

    OR

    B) Explain the instrumentation of GC. Discuss the application of GC to environmental analysis.

32. A) Discuss about Disaster Management Act and Policy in India.

    OR

    B) What is disaster management cycle ? Explain the various phases of disaster management cycle and their significance. **(4×6=24)**

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