

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MARCH 2017**Sixth Semester****Choice based Core Course – ENVIRONMENTAL CHEMISTRY**

(Common for B.Sc. Chemistry Model I, Model II, B.Sc. Petrochemicals and B.Sc. Chemistry Environment and Water Management)

[2013 Admission onwards]

Time : Three Hours

Maximum Marks : 80

Part A

Answer all questions.

Each question carries 1 mark.

1. What is threshold limiting value?
2. Name the heavy metal connected with Itai-Itai disease.
3. What is ozone hole?
4. What is the tolerable limit of noise level?
5. What is SPM?
6. Give the expansion of SAR.
7. What is the pH of sea water?
8. An important type of soil reaction is _____.
9. Suggest an antidote for lead.
10. Mention the name of an organochlorine insecticide.

(10 × 1 = 10)

Part B

Answer any eight questions.

Each question carries 2 marks.

11. Distinguish between renewable and non-renewable energy.
12. What is thermal pollution? Explain.
13. Briefly explain biochemical effects of PAN.
14. What are carcinogen? Give example.
15. What are terratogen? Give example.

Turn over

16. Write short notes on green house effect.
17. What are indoor pollutants? How can it minimize?
18. Define environmental management system. What are its benefits?
19. How geothermal energy can be used for generation of electricity?
20. Explain the control measures to check air pollution.
21. The use of pesticides has become an environmental hazard. Explain.
22. What is meant by phytoremediation?

(8 × 2 = 16)

Part C

Answer any six questions.

Each question carries 4 marks.

23. What are the major sources of head pollution?
24. What is biomagnification? What are its consequences?
25. Analyse critically the factors responsible for air pollution and suggest remedial measures.
26. What are the factors responsible for ozone depletion?
27. Explain the various steps involved in the treatment of waste water.
28. Write a note on radiation pollution, its sources and impact on the environment.
29. Write notes on water quality index and water quality standards.
30. Briefly explain the sampling procedure and analysis of soil normally done for Kerala type agriculture.
31. What is cation exchange capacity of soil? How will you measure it?

(6 × 4 = 24)

Part D

Answer any two questions.

Each question carries 15 marks.

32. Explain the biochemical effect of pesticide with example.
33. Discuss the adverse effect of water pollution. Suggest remedial measures.
34. (a) Discuss briefly on sources and biochemical effect of A_1 , PAN and oxides of Nitrogen pollution.
(b) Write about non-conventional energy sources.
35. (a) Write a note on radioactive pollution of water.
(b) Define noise pollution. Give its classification hazards and preventive measures.

(2 × 15 = 30)