

TB146140A

Reg. No.....

Name.....

B. Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MARCH 2017

SEMESTER VI - CHEMISTRY

CHE6EC - ENVIRONMENTAL CHEMISTRY

Time: Three Hours

Maximum Marks: 80

PART A

I. Answer all questions. Each question carries 1 mark.

1. Nuclear reactor produce -----pollution
2. What are mutagens?
3. Suggest an antidote for mercury.
4. Define lethal dose.
5. ----- gas is responsible for Bhopal gas tragedy.
6. Name an organochlorine pesticide.
7. Name some inorganic pollutants in water.
8. Leaf Necrosis is due to -----.
9. What are humic substances?
10. Define SOM.

(10x1=10)

PART B

II. Answer any eight questions. Each question carries 2 marks.

11. Differentiate pollutant and contaminant.
12. What is meant by renewable and non-renewable energy sources? Give examples.
13. What is ISO14001 certification?
14. Differentiate between biomagnification and bioaccumulation.
15. Briefly explain the biochemical effects of PAN
16. What are secondary pollutants? Give examples.
17. Discuss the effect of electric and magnetic field on environment
18. What is greenhouse effect?
19. How will you measure the alkalinity of water?
20. What are builders? Give an example.
21. Write notes on micro and macro nutrients present in the soil.
22. Define gypsum requirement of soil.

(8x2=16)

PART C

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

23. Discuss briefly on non-conventional energy sources? What are its advantages in detail.
24. Explain the impact of toxic chemicals on enzymes using examples.

25. What are the biochemical effects caused by pesticides? Give examples.
26. Explain the biochemical toxicity of carbonmonoxide.
27. What is Eutrophication? What are it effects?
28. Comment on the environmental degradation Kuttanadu wetland.
29. Write a note on thermal pollution.
30. Define cation exchange capacity and how will you measure it.
31. Write briefly on soil analysis techniques.

(6x4=24)

PART D

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

32. a) Describe the cause and adverse effects of acid rain.
b) Describe briefly on Bhopal gas disaster.
33. a) Discuss briefly on sources and biochemical effects of Lead, Arsenic, Cadmium and mercury.
b) Discuss the common techniques of sampling and analysis of odour, EC, turbidity, TDS, salinity of water samples.
34. a) Describe the methods used for the estimation of the following water quality parameters BOD, COD, DO, choliform, acidity
b) What are the effects of water pollution?
35. a) Discuss briefly about sampling procedures used in soil analysis.
b) Write notes on soil pollution .What are the effects of soil pollutants.

(2x15=30)