

**FIFTH SEMESTER B.A./B.Sc./B.Com. DEGREE EXAMINATION
NOVEMBER 2015**

(U.G.—CCSS)

Open Course

CH 5D 01 ENVIRONMENTAL CHEMISTRY

Time : Three Hours

Maximum : 30 Weightage

I Answer all the *twelve* questions. Each question carries a weightage $\frac{1}{4}$.

(This section contains multiple choice, fill in the blanks and one word answer questions)

Choose the correct answer of the following :-

1. In which unit air pollution is measured ?

- (a) ppb. (b) ppm.
(c) ppt. (d) ppg.

2 Which one is a Secondary pollutant ?

- (a) Volatile Organic Compound.
(b) Ozone.
(c) Carbon dioxide.
(d) Smoke.

3 A gas released from jet exhaust causing ozone depletion, is :

- (a) Chlorine. (b) Carbon dioxide.
(c) Fluorine. (d) Nitrogen oxides.

4. Identify the gas that can be controlled by Wet and Dry Chemical scrubbers :

- (a) SO_2 (b) NO_2
(c) CO_2 (d) CH_4 .

Fill in the blanks :

5. Sound becomes physically painful at _____ dB level.
6. DDT is a _____ pollutant
7. Eutrophication is caused by _____ type of pesticides.
8. The water covering of earth is called _____

Turn over

Answer in a *word* :

9. Suggest a method for detecting excess concentration of Sulphur dioxide gas in air.
10. What is the environmental segment of the outer mantle of solid earth ?
11. What is Biosphere ?
12. What is Turbidity of a fluid ?

(12 x $\frac{1}{4}$ = 3 weightage)

II. Each question carries a weightage 1. Answer all the *nine* questions :

13. What are non-persistent air pollutants ?
14. What are particulates ?
15. Name any *two* *eco* friendly substitutes for CFC.
16. Which is the basic test for bacterial contamination and what is E. coli ?
17. How is the fluoride concentration of water tested ?
18. What is sludge ?
19. What is the main emission source of greenhouse gas ?
20. List out any *four* water quality indices.
21. Explain briefly the term "zoning".

III. Each question carries a weightage of 2. Answer any *five* questions : (9 x 1 = 9 weightage)

22. Differentiate between Chemical Oxygen Demand and Biological Oxygen Demand.
23. What are the five major primary air pollutants produced by human activity ?
24. List out the various parameters in air quality monitoring fixed by CPCBI of the Government. of India?
25. Distinguish between biomagnification and bio-accumulation
26. What is the difference between pollutants and contaminants ?
27. Identify the various inorganic ions and toxic heavy metals causing water pollution.
28. Explain briefly about stacks and chimneys.

IV. Answer *two* questions. Each question carries a weightage of 4 : (5 x 2 = 10 weightage)

29. Briefly explain various aspects of Solid Waste Management.
30. Write the composition of particulates and discuss the health effects of particulates.
31. Explain the Winkler method of estimation of dissolved oxygen.

(2 x 4 = 8 weightage)