

**L-7/2050**

ENVIRONMENTAL CHEMISTRY-401

(Semester-IV)

Time : Two Hours]

[Maximum Marks : 55

**Note** : Attempt any *four* questions. All questions carry equal marks.

- I. What is Global Warming ? Discuss the major environmental impacts of Global Warming.
- II. What are water pollutants ? Discuss in detail important steps involved in the water treatment.
- III. (a) Write an explanatory note on Air pollution accident occurred in 1984 at Bhopal.  
(b) How to Ascertain the path of pesticides in Environments ? Explain.
- IV. Write a note on the following :
  - (a) Soil and Agriculture pollution.
  - (b) Monitoring equipments involved in Air pollution.

- V. (a) State and explain Lambert-Beer's law and also derive mathematical expression.
- (b) Discuss the principle involved in Flame photometer.
- (c) Discuss BOD and COD of Industrial Effluents.
- VI. (a) Write an explanatory note on toxic pollutants.
- (b) Explain NDIR technique for the analysis of pollution data.
- VII. Write a note on the following :
- (a) Standardization of different ion selective Electrodes.
- (b) Chemical and instrumental methods for the analysis of metal pollutants in effluents.
- VIII. Discuss principles, theory and instrumentation of Atomic Absorption spectroscopy. How is it utilized for the analysis of pollution data ?
- IX. (a) What is Green house Effect ?
- (b) Differentiate between Turbidimetry and Nephelometry.
- (c) Classify the pesticides.
- (d) Discuss the role of column in Ion chromatography.
- (e) What is meant by pH of a solution ?
- (f) Define conductance and specific conductance.

- (g) How to detect SPM in air pollutants ?
  - (h) What is Biochemical Effect of Hg ?
  - (i) What is meant by Environmental segments ?
  - (j) Explain Acid Rain particulates.
  - (k) Discuss the role of nutrients in soil.
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