

2056

M.Sc. Applied Chemistry (Pharmaceutical) Fourth Semester
Paper – 403: Industrial Aspects and Management

Time allowed: 3 Hours

Max. Marks: 60

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit.

x-x-x

I. Briefly answer the following:-

- Define atmospheric pressure. How does atmospheric pressure affect air pollution?
- What are the main characteristics of thermal air pollution?
- List any four types of water pollutants.
- What are the different types of hazardous waste control techniques used in industries?
- Briefly explain the process of acid deposition.
- What do you mean by dissolved and suspended solids? (6x2)

UNIT - I

II. Discuss the impact of wind on atmospheric pollution. How does the wind speed and direction affect the spread and concentration of pollutants? (12)

III. Explain the concept of atmospheric transport and dispersion of pollutants. How do winds play a role in the spread of air pollutants? (12)

UNIT - II

IV. Explain the process of acidic deposition. Also, describe the main environmental and health effects of acid rain. (12)

V. Name the various methods used for air pollution control. Discuss the working principles of a cyclone separator and an electrostatic precipitator for particulate emission control. (12)

UNIT - III

VI. Discuss the various water quality parameters used to measure the health of aquatic ecosystems. How do turbidity, temperature, and dissolved oxygen levels affect aquatic life? (12)

P.T.O.

(2)

- VII. Explain the process of water pollution index calculation. Discuss the general concept of Nygard's and Polymer's Algal Pollution Indices in water pollution management? (12)

UNIT - IV

- VIII. Explain the working of anaerobic lagoons in wastewater treatment. What are the advantages and disadvantages of using anaerobic treatment methods? (12)

- IX. What are the principles of waste minimization technology? Discuss how waste minimization can contribute to integrated hazardous waste management. (12)

x-x-x