

1059
B.A./B.Sc. (General) Fourth Semester
Industrial Chemistry
Paper – B: Pollution

Time allowed: 3 Hours

Max. Marks: 75

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit.

x-x-x

I. Attempt the following:-

- a) How will you define water pollution?
- b) Write the short note on biosphere?
- c) Define pollution.
- d) Write the function of electrostatic precipitators.
- e) Define the adsorption.
- f) Which type of the impurities or pollutants can be removed by the sedimentation process?
- g) What is the full form of HPLC? Mention its two applications.
- h) Explain in brief 'ocean dumping'.
- i) Write the SI and CGS units of density?
- j) Mention two differences between glass and bimetallic thermometers.(10x1½)

UNIT – I

II. a) What do you understand by air pollution? What are the sources of it? Describe the effect of various air pollutants on living.

b) Describe the pesticide pollution in detail. (10,5)

III. Describe the following terms:-

a) Nitrogen Cycle

b) Sewage analysis (7,8)

UNIT – II

IV. a) What are the sedimentation and filtration processes in waste water treatment? Explain.

b) Explain the working principle of bag filters. For what purpose are they used? (10,5)

P.T.O.

(2)

- V. What is anaerobic digestion? Explain its applications in waste water treatment. (15)

UNIT – III

- VI. a) What do you understand by the term 'solid waste'? Describe the process of solid waste management by recycling technique. (10,5)
- b) What do you understand by biological waste treatment? (10,5)
- VII. Explain in detail about the GC technique, its principle and applications in environmental chemical analysis with an example? (15)

UNIT – IV

- VIII. Discuss the different type of pressure gauges. Explain the working and applications of one of them. (15)
- IX. a) Explain in detail the principle, advantages and disadvantages of vapour filled and resistance thermometer. (10,5)
- b) Write a note about viscosity measurement. (10,5)

x-x-x