

1056
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. I which is compulsory and selecting one question from each Unit.

x-x-x

I. Attempt the following:-

- a) What is biosphere?
- b) Define pollution.
- c) What do you mean by flora and fauna?
- d) What is aerobic digestion?
- e) What is sedimentation?
- f) Write the full name of HPLC and mention its application.
- g) Write the SI and CGS units of density.
- h) What is ESP?
- i) Name the different sources of water.
- j) What is urban waste?

(10x1½)

UNIT – I

II. Explain the following:-

- a) Nitrogen cycle
- b) Effects of air pollution on human beings

(15)

- III. a) Write the composition of sewage. Discuss the sources considering a case study.
b) What is pesticide pollution? Discuss their effects on vegetation and health?(7,8)

UNIT – II

- IV. Explain the activated sludge and trickling filter methods for wastewater treatment along with their applications.

(15)

V. Explain the construction and working of following equipments:-

- a) Wet scrubber
- b) Absorber

(15)

P.T.O.

(2)

UNIT - III

VI. Explain in detail about following solid waste management methods:

- a) Compositing
- b) Sanitary landfilling
- c) Incineration.

(3x5)

VII. Write in detail about the following:

- a) Concept of measurement and accuracy of lab instruments
- b) Atomic absorption spectroscopy

(8,7)

UNIT - IV

VIII. Discuss the different types of thermometers. Explain the construction, working and applications of one of them. (15)

IX. Write a note on:-

- a) Pressure manometers
- b) Viscosity measurement

(15)

x-x-x