

1056

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. 1 which is compulsory and selecting one question from each Unit.

x-x-x

I. Attempt the following:-

- (a) Name the sources of different air pollutants.
- (b) What do you mean by ambient air quality?
- (c) What is ozone layer depletion?
- (d) What is water pollution? Name its sources.
- (e) What is water hardness? Write its types.
- (f) Write down the principle of aerobic digestion.

UNIT – I

- II. a) Give the composition of atmosphere.
- b) Discuss the kinds of air pollution and their effects on human beings. (6,6)
- III. a) Explain the mechanism of dispersion of air pollutants in atmosphere.
- b) Discuss the causes and effects of smog. (6,6)

UNIT – II

- IV. Write a note on the following:-
 - a) IR and gas chromatography techniques used for air quality measurement
 - b) Sampling techniques (6,6)
- V. Write down the following processes/methods to control air pollution:
 - a) Adsorption and incineration
 - b) Control of particulate matter (6,6)

UNIT – III

- VI. Explain the following in detail:-
 - a) Water quality parameters
 - b) Estimation of BOD and COD (6,6)

(2)

VII. Discuss in detail:-

- a) Water sampling techniques
- b) Nygaard's Indices

(6,6)

UNIT - IV

VIII. a) Discuss the construction and working of secondary clarifier

- b) Write about "Anaerobic lagoons".

(6,6)

IX. a) Explain the concept of waste minimization with a case study.

- b) Write a note on "Disaster planning and management".

(6,6)

x-x-x

UNIT - I

a) Give the composition of atmosphere

b) Discuss the kinds of air pollution and their effects on human beings.

a) Explain the mechanism of dispersion of air pollutants in atmosphere

b) Discuss the causes and effects of smog

UNIT - II

IV. Write a note on the following:-

a) IR and gas chromatography techniques used for air quality measurement

b) Sampling techniques

V. Write down the following processes/methods to control air pollution.

a) Adsorption and incineration

b) Control of particulate matter

UNIT - III

VI. Explain the following in detail:-

a) Water quality parameters

b) Estimation of BOD and COD