

JUN 2006

June, 2006

Subject Code—4249

P.G. Diploma EXAMINATION

(New Scheme)

ENVIRONMENTAL MANAGEMENT

PGDEM-04

Pollution Control and Management

Time : 3 Hours

Maximum Marks : 100

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. (a) State the permissible limits of the following in drinking water :
 - (i) Hardness
 - (ii) Fluoride
 - (iii) BOD

P.T.O.

- (iv) SO_4
- (v) Chloride
- (vi) Nitrate
- (vii) COD.

(b) Define the following terms :

- (i) Disinfection
- (ii) BOD
- (iii) COD
- (iv) Coagulation
- (v) Activated Sludge
- (vi) Chlorination
- (vii) Nitrification
- (viii) Fluoridation
- (ix) Denitrification.

2. (a) Draw a flow diagram for conversion of waste water into potable water.

(b) Sketch a flow diagram of an activated sludge treatment process.

(c) Write short notes on any *two* of the following :

- (i) Trickling Filter
- (ii) Aerated Lagoons
- (iii) Rotating Biological Contactors.

Unit II

3. (a) What are the Indian Standards of the following parameters for disposal of industrial effluent :
- (i) Suspended Solids
 - (ii) pH
 - (iii) BOD
 - (iv) COD
 - (v) Dissolved Solid
 - (vi) Ammonical Nitrogen.
- (b) How can you encourage water conservation in an Industrial Plant ?
- (c) How does segregation reduce the strength of wastewater ?
4. Write short notes on any *four* of the following :
- (a) Dialysis
 - (b) Neutralization
 - (c) Reverse Osmosis
 - (d) Disinfection
 - (e) Sources of Hazardous Waste.

Unit III

5. What do you mean by Solid Waste Management ? What methods can be used in solid waste management ?
6. (a) What is an Aerobic Digestion ? Which gas is produced from anaerobic digestion of solid waste ?
(b) What are the sources of municipal wastes ?
(c) How many types of wastes are produced in an hospital ?

Unit IV

7. Write short notes on the following :
 - (a) Electrostatic Precipitation
 - (b) Silencers
 - (c) Fibric Filter
 - (d) Strategies for controlling air pollution.
8. (a) Enumerate the strategies for Noise Pollution Control.
(b) Enumerate the measures to be taken to minimize vehicular pollution.