

NRT/KS/19/2187

Bachelor of Science (B.Sc.) Semester—VI Examination
WATER POLLUTION : MONITORING AND MANAGEMENT
Optional Paper—1
(Environmental Science)

Time : Three Hours]

[Maximum Marks : 50

Note :— (1) All questions are compulsory and carry equal marks.

(2) Illustrate your answer with suitable example and diagram.

1. Discuss organic and inorganic type of water pollutants. Indicate a primary source of each type. 10

OR

(a) Draw the schematic diagram of gas chromatography. Explain the functions of its components. 5

(b) Explain the theory behind chemical oxygen demand estimation. How it is useful in environmental Chemistry ? 5

2. Define Marine pollution. Discuss the sources of oil pollutants in Sea Water. 10

OR

(a) Describe how excess nutrients can kill a lake ? 5

(b) Write briefly about oxygen sag curve. 5

3. Define thermal pollution. What are its different Sources ? State its hazardous effects on water quality. 10

OR

(a) Write informative note on Cooling towers. 5

(b) What are the advantages of flyash ? 5

4. What is radiation chemistry ? Describe briefly the interaction of ionising and non ionising radiation. 10

OR

(a) Classify the radioactive waste produced in nuclear industry. 5

(b) Write informative note on Chernobyl — world's worst nuclear disaster. 5

5. Write in brief (Solve any **TEN**) :—

(a) Define BOD.

(b) What are heavy metals ?

(c) State the different sources of ground water contamination.

(d) How eutrophication is classified ?

- (e) What do you understand by Oil Spills ?
- (f) What is the role of phosphate in surface water ?
- (g) What is the chemical composition of fly ash ?
- (h) What are the risks and benefits associated with flyash ?
- (i) Discuss the guidelines of selecting site for thermal power plant.
- (j) Define Radioactivity.
- (k) What do you understand by radioactive fall out ?
- (l) Give some beneficial aspects of radiation.

1×10=10