NKT/KS/17/5220

Bachelor of Science (B.Sc.) Semester–VI (C.B.S.) Examination

WATER POLLUTION : MONITORING AND MANAGEMENT

Paper–1

(Environmental Science)

Time : Three Hours] [Maximum Marks : 50

N.B. :— (1) **All** questions are compulsory and carry equal marks.
(2) Illustrate your answer with suitable examples and diagrams.

1. What is gas chromatography ? Illustrate a gas chromatographic instrument and explain its major components. 10

OR

(a) Explain the theory behind biochemical oxygen demand estimation; how it is useful in environmental analysis ? 5
(b) Discuss the chemical speciation of mercury (Hg). 5

2. Define marine pollution. State various sources of oil pollutants in sea water. 10

OR

(a) What are the technical difficulties that arise in controlling oil pollution ? 5
(b) What is eutrophication ? How is it classified ? 5

3. What is thermal pollution ? Explain long term impact of thermal power plant pollution on water quality. 10

OR

(a) How thermal pollution can be controlled effectively ? 5
(b) What precautions are necessary to be taken while selecting site for thermal power station ? 5

4. What do you mean by radioactive fallout ? Discuss in brief the mechanism of fallout. 10

OR

(a) Classify the radioactive wastes produced in nuclear industry. 5
(b) Discuss biological effects of radiation. 5

5. Attempt any **ten** :
(a) Define chemical oxygen demand.
(b) Name various water borne diseases caused due to various types of water pollution.
(c) List any four different groups of water pollutants.
(d) What is self purification of water ?
(e) Name the different zones of pollution of any water body.
(f) What will happen if nutrient load is more in aquatic system ?
(g) What is cooling towers ?
(h) What are the causes of thermal pollution ?
(i) What are the hazards created by flyash ?
(j) Give characteristic feature of a nuclear reactor.
(k) Differentiate between ionising radiation and non ionsing radiation.
(l) What are the units of radiation ? 1×10=10