

Bachelor of Science (B.Sc.) Semester—II (C.B.S.) Examination

ENVIRONMENTAL SCIENCE

(Introduction to Water and Soil Chemistry)

Compulsory Paper—1

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 are the main objectives of water sampling ? Explain the factors responsible for deciding sampling locations. 10

OR

(a) How thermal pollutant affect water quality ? 5
(b) Explain various types of water samples. 5

2. What are the physical parameters for assessing the water analysis ? 10

OR

(a) What is a difference between hard and soft water ? 5
(b) What is D.O. ? Why is it a significant parameter of water quality ? 5

3. Define soil. Describe the chemical properties of soil. 10

OR

(a) Give an account on soil profile indicating soil horizons. 5
(b) Give classification on the basis of mode of formation. 5

4. Define soil erosion. Explain the factors causing erosion of soil. 10

OR

(a) What is humus and how is it form in the soil ? 5
(b) Discuss the various causes of soil degradation. 5

5. Attempt any **ten** :

- (a) What is the chemical composition of sea water ?
- (b) What are the characteristics of ground water ?
- (c) Why there is a need of sample preservation ?
- (d) What is the difference between T.S.S. and T.D.S. ?
- (e) Explain the term NTU.
- (f) A solution has a pH of 8.2, is acidic or basic.
- (g) Why acidic soils are better for the plant growth than the alkaline soil ?
- (h) What are the different types of rocks ?
- (i) Name the factors affecting soil formation.
- (j) What does NWDB stands for ?
- (k) Define soil fertility.
- (l) Name the types of soil erosion.

$1 \times 10 = 10$