KNT/KW/16/5158

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

ENVIRONMENTAL SCIENCE

(Soil Pollution & Waste Management)

Paper—I

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 soil pollutants ? How are they classified ? 10

OR

(a) What are the objectives of soil sampling ? 5

(b) How degradation of different pesticides takes place in soil ? 5

2. What are solid wastes ? Investigate the major sources of solid waste. Give a brief account on composition of municipal solid waste. 10

OR

(a) Discuss the municipal solid waste collection processes. What are the advantages of the collection system ? 5

(b) Write an informative note on recycling and reuse of solid waste. 5

3. What are the objectives of solid waste sampling ? How do you select sampling location ? Add a note on site selection criteria. 10

OR

(a) What is composting ? How does aerobic decomposition differ from an-aerobic decomposition ? 5

(b) How biogas is generated from MSW ? 5

4. What are hazardous wastes and how are they classified ? Explain the important factor that should be consider for hazardous waste management plant. 10

OR

(a) Mention the categories of biomedical waste. 5

(b) Discuss the management and handling rules of hazardous waste. 5

5. Attempt any **ten** :

(a) What are the different types of synthetic fertilizers ?

(b) What are the various components of soil ?

(c) What is the chemical name of DDT ?

(d) Why is solid waste pollution a significant problem ?

(e) What are the physical properties of solid waste ?

(f) What are the factors affecting solid waste generation ?

(g) What are the essential features of a secure land-fill ?

(h) What is vermiculture technique ?

(i) What are the types of solid waste samples ?

(j) What is the composition of hospital waste ?

(k) Name the method used for treatment and disposal of hazardous chemical waste from industrial process.

(l) What are the characteristics of e-waste ? 1×10=10