

NRT/KS/19/2125

Bachelor of Science (B.Sc.) Semester-IV Examination
ENVIRONMENTAL SCIENCE (Soil Pollution & Waste Management)

Optional Paper-I

Time : Three Hours]

[Maximum Marks : 50

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

(2) Illustrate your answers with suitable examples and diagrams.

1. What are the sources of soil pollution ? Discuss the detrimental effects of soil pollutants. 10

OR

(a) Write an informative note on "Eco-friendly pesticides". 5

(b) Explain in brief biomagnification and biotransformation. 5

2. How solid wastes are classified ? Describe the incineration and pyrolysis for the treatment and disposal of solid waste. 10

OR

(a) What are the common types of vehicles used in collection of municipal solid waste ? 5

(b) Discuss the common techniques used for material separation of solid waste. 5

3. Discuss the methodology used for vermi-culture bio-technology. Add a note on its advantages. 10

OR

(a) Discuss the site selection criteria for sanitary land fill. 5

(b) How is biogas generated from municipal solid waste ? Explain. 5

4. Define hazardous waste. Discuss the various techniques used for the treatment and disposal of hazardous waste. 10

OR

(a) Explain the key components of leachate management system. 5

(b) Discuss the categories of biomedical waste. 5

5. Write in **2-3** lines (any **ten**) :

(a) What is bioaccumulation ?

(b) What are the objectives of soil sampling ?

(c) What is integrated pest management ?

(d) What are physical properties of solid waste ?

(e) Composition of municipal solid waste.

(f) Factors affecting collection of solid waste.

(g) Define composting.

(h) Site selection criteria for solid waste.

(i) Indian scenario of solid waste management.

(j) Name some chemicals recovered from hazardous waste.

(k) Colour coding of biomedical waste.

(l) Co-disposal of hazardous waste. 1×10=10