

NTK/KW/15–5873

**Fourth Semester Bachelor of Science (B.Sc.)
(Part – II) Examination**

ENVIRONMENTAL SCIENCE

Paper–VII

(Soil Pollution and Waste Management)

Time : Three Hours]

[Max. Marks : 50

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

1. What are the types of synthetic fertilizers (NPK) and their interactions with different components of the soil. 10

OR

- (a) Suggest the control measures for pesticide pollution. 5
(b) Explain in detail about integrated pest management program. 5
2. Describe the physical and chemical properties of solid waste. 10

OR

- (a) What are the types of collection system and equipment used for the municipal solid waste ? 5

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- (b) Discuss the different steps of composting operation. 5

3. What are the objectives of solid waste sampling ? Explain the collection and handling of solid waste samples. 10

OR

- (a) Explain disposal of solid waste by Sanitary landfill. 5
- (b) Explain a method of biogas formation from municipal solid waste. 5

4. What are hazardous waste ? How are they classified ? 10

OR

- (a) What are the hazardous associated with poor Biomedical waste management ? 5
- (b) Discuss the 3-R principle of waste minimisation for hazardous waste. 5

5. Attempt any **Ten** :

- (i) How soil pollutants are broadly classified ? 1
- (ii) What is the chemical name for DDT ? 1
- (iii) What do you understand by persistent pesticide ? 1
- (iv) Give a brief definition of MSW. 1
- (v) Distinguish between open dumping and incineration. 1

- (vi) What is Co-composting ? 1
- (vii) What are the advantages of vermicomposting ? 1
- (viii) What are the essential features of a secure land fill?
- (ix) Write a note on Municipal Solid Waste (Management and handling Rules – 2000) framed by MOEF. 1
- (x) Mention the categories of biomedical waste. 1
- (xi) Name the important factor that should be considered for hazardous waste management plant. 1
- (xii) What is meant by site remediation ? 1