

**POST GRADUATE DIPLOMA IN
WASTE MANAGEMENT (PGDWAM)**

Term-End Examination

June, 2026

**MEV-051 : OVERVIEW OF WASTE
MANAGEMENT**

Time : 3 Hours

Maximum Marks : 100

Note : (i) Attempt any **ten** questions.

(ii) Each question carries 10 marks.

1. Describe how to analyse the chemical properties of waste through proximate analysis. What is the significance of determining the waste energy value ? Explain. 10
2. (a) Define Integrated Municipal Solid Waste Management (IMSW) and state its core principles. 5

- (b) What is the significance of public participation in waste management programs. 5
3. What is Construction and Demolition waste ? Describe its composition, sources and effects on environment. 10
4. What are the types of solid waste generated by agricultural activities and poultry farms in India ? Describe its composition and the quantity generated. 10
5. Describe the Waste Generation Rate (WGR) method and the waste composition analysis method. Explain in detail with formulas and their applications. 10
6. What properties make waste hazardous ? Describe any *four* properties in detail. Explain the colour-coding system used for hazardous waste segregation. 2+4+4
7. Differentiate between macro and micro routing. Explain the purpose of districting in planning collection for a large area. 5+5

8. Describe the structures of modern scientific landfill and its functions. 10
9. Describe the mechanism of Soil Vapour Extraction (SVE) and Air Stripping as remediation technologies. Explain the types of pollutants and environmental media respond to each technique. 5+5
10. What is Vermicomposting ? How does it differ from traditional composting ? What are its benefits ? 2+4+4
11. Describe the activated sludge process as a method for secondary waste water treatment. Explain the role of the aeration tank and the secondary clarifier in this system. 5+5
12. Analyse the role of Dissolved Organic Matter (DOM) from leachate as a pollutant. How does its seepage disrupt the natural ecosystem ? 5+5

13. What are the environmental threats of land filling antibiotics ? How does this practice promote antibiotic resistance and threat to public health ? 4+6
14. How does waste generation contribute to climate change ? What processes in landfills lead to the potent greenhouse gases ? 5+5

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