



Term Evaluation (Even) Semester Examination March 2025

Roll no.....

Name of the Course: B. Tech (Civil Engineering)

Semester: IV

Name of the Paper: Municipal Solid Waste Management

Paper Code: TCE 411

Time: 1.5 hour

Maximum Marks: 50

Note:

- (i) Answer all the questions by choosing any one of the sub-questions
- (ii) Each question carries 10 marks.

Q1.

(10 Marks) CO1

- a. Classify municipal solid waste based on its sources and characteristics. Discuss in detail how these characteristics affect the selection of waste management techniques.

OR

- b. Differentiate between hazardous and non-hazardous waste. Explain how improper management of hazardous waste affects public health and the environment.

Q2.

(10 Marks). CO1

- a. "Solid waste generation varies across different sectors". Compare and contrast the composition of domestic, industrial, and biomedical waste, emphasizing their management challenges.

OR

- b. "E-waste is one of the fastest-growing waste streams worldwide". Discuss the sources, characteristics, and environmental implications of e-waste mismanagement.

Q3.

(10 Marks). CO2

- a. "Efficient waste storage and collection are critical for solid waste management". Explain the different storage methods and collection techniques used in urban and rural areas.

OR

- b. Discuss the significance of transfer stations in waste transportation. Explain their role, site selection criteria, and impact on overall waste management efficiency.

Q4.

(10 Marks) CO2

- a. "Transportation of solid waste involves various vehicle types". Discuss the different transportation vehicles used in waste management, their working capacities, and suitability for different waste types.

OR

- b. "Vermicomposting is an effective organic waste management technique". Explain its working principles, factors affecting the process, and its advantages over conventional composting methods.

Q5.

(10 Marks). CO2

- a. "Rag pickers play a crucial role in solid waste management". Critically analyze their contributions, challenges, and strategies to integrate them into formal waste management systems.

OR

- b. "Composting is a key technique for solid waste management". Compare and contrast Bangalore and Indore methods of composting, highlighting their advantages and disadvantages.