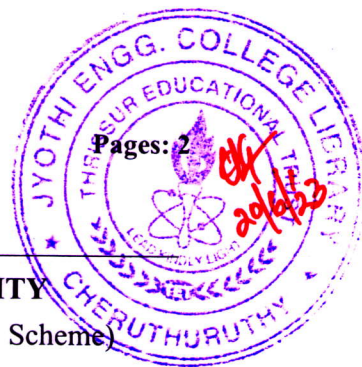


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Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

B.Tech S8 (S, FE) / S8 (PT) (R, S) Examination June 2023 (2015 Scheme)

**Course Code: CE474**

**Course Name: MUNICIPAL SOLID WASTE MANAGEMENT**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer any two full questions, each carries 15 marks.*

Marks

- 1 a) What are the components of E- waste? How are they stored? (5)  
b) Explain in detail, Radioactive waste and Agricultural waste. (5)  
c) What are the physical characteristics of MSW? (5)
- 2 a) Explain the physical properties of solid waste. (10)  
b) What is meant by Proximate analysis and Fusing point of ash? (5)
- 3 a) Classify solid waste based on source and define each. (10)  
b) Explain any one method of estimation of generation rate of municipal solid waste. (5)

**PART B**

*Answer any two full questions, each carries 15 marks.*

- 4 a) What are the factors that have to be considered while fixing collection route? (5)  
b) Explain the concept of Communal containers with its advantages and disadvantages (5)  
c) What is meant by Transfer Station? Discuss the factors that affect the selection of a Transfer Station. (5)
- 5 a) With the help of neat sketches, explain the most commonly used shredding equipments. (10)  
b) Discuss the factors that have to be considered while selecting air separation equipment? (5)
- 6 a) Explain the different types of collection vehicles used in waste management system. (7)  
b) Explain the most common method used for reducing the volume of waste chemically. (8)

**PART C**

*Answer any two full questions, each carries 20 marks.*

- 7 a) Discuss about the various types of gaseous pollutants formed during incineration. (7)  
b) Explain the term sanitary landfill. List out its advantages and disadvantages. (7)

- c) What do you understand by the term leachate? How can it be controlled in landfills? (6)
- 8 a) With the help of neat sketch, explain Bangalore process of composting. (10)
- b) Explain the basic stages of composting. (10)
- 9 a) What is meant by the term Composting? Explain the different types of composting methods. (10)
- b) Briefly explain the various factors that must be considered while selecting the site for waste disposal (10)

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