

Code: CE7T5D

**IV B.Tech - I Semester – Regular / Supplementary Examinations
JANUARY - 2022**

**SOLID WASTE MANAGEMENT
(CIVIL ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

PART – A

Answer ***all*** the questions. All questions carry equal marks

11 x 2 = 22 M

1.

- a) List out various sources of solid waste generation.
- b) Write the composition of typical Indian solid waste.
- c) What are the equipments used for collection of solid waste?
- d) What do you mean by optimum collection route?
- e) What is Leachate?
- f) What are the various processing techniques involved in S.W.M?
- g) What do you mean by biological conversion?
- h) What is meant by pyrolysis?
- i) List the composition of e-waste.
- j) What is sanitary landfill?
- k) Write the role of C/N ratio in composting.

PART – B

Answer any **THREE** questions. All questions carry equal marks.

$$3 \times 16 = 48 \text{ M}$$

2. a) Explain the various characteristics of Municipal Solid Waste. 8 M
b) Examine the public health and environmental effects due to improper handling of solid waste. 8 M
3. a) Describe the methods adopted in India for collection and transport of solid waste. 8 M
b) Explain the functions of transfer stations. 8 M
4. a) Describe the mechanical methods of volume reduction of solid waste. 8 M
b) Explain the various phases of municipal solid waste decomposition in a closed landfill cell. 8 M
5. a) Explain the working of a continuous feed mass fired municipal incinerator with a neat sketch. 8 M
b) Explain composting process of bio degradable municipal solid waste. 8 M
6. a) Justify the recycling of plastic waste. 8 M
b) Explain the collection and segregation of E-waste. 8 M