



R22 Regulation

Subject code: 4P5AF

# TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

## B.Tech V Semester Supplementary Examinations, May 2025

### SOLID AND HAZARDOUS WASTE MANAGEMENT

(CE)

Maximum Marks: 60

Date: 26.06.2025

Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
  2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
  3. Part B consists of 5 Units. Answer any one full question from each unit.
  4. Each question carries 10 marks and may have a, b, c, d as sub questions.

#### Part-A

All the following questions carry equal marks (10X1M=10 Marks)		Marks	CO	Bloom Tx
1.a)	List out different sources of solid wastes.	1M	1	L1
b)	What is the need for solid waste management?	1M	1	L1
c)	What do you understand by Transfer stations? Discuss.	1M	2	L1
d)	Write the objectives of solid Municipal solid waste management?	1M	2	L1
e)	What is the necessity of waste landfill remediation?	1M	3	L1
f)	List types of Hazardous wastes.	1M	3	L1
g)	Differentiate between biomedical waste and hazardous waste?	1M	4	L1
h)	Write methods of collection of Biomedical waste?	1M	4	L1
i)	What is E-waste? Describe the source of it?	1M	5	L1
j)	Differentiate between plastic waste and e-waste?	1M	5	L1

#### Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	Bloom Tx
2	Illustrate the impact on environmental health effects of solid waste	10M	1	L2
OR				
3	Discuss in detail about the factors affecting the solid waste generation rates.	10M	1	L2
4	Explain the regulatory aspects of municipal solid waste management?	10M	2	L2
OR				
5	What is pyrolysis? In what way is it related to solid waste? What is characteristics? Explain.	10M	2	L2
6	Discuss in detail about collection, segregation and disposal of Hazardous wastes.	10M	3	L2
OR				
7	Explain the effects of improper management of hazardous waste and its regulations.	10M	3	L2

8	What is meant by low level and high-level radioactive wastes? Discuss the management of them?	10M	4	L2
	OR			
9	What are the regulatory aspects of bio medical waste management? Explain.	10M	4	L2
10	Explain how the recycling of e-waste can be managed? Explain with examples.	10M	5	L2
	OR			
11	Discuss the issues associated with plastic wastes and suggest different measures to address the key issues.	10M	5	L2