

CIVIL ENGINEERING

QUESTION BANK

Course Title : SOLIDWASTEMANAGEMENT

Course Code : 23CE716

Regulation : NR23

UNIT-III

Engineering Systems for Resource and Energy Recovery

S.No	Questions	BT	CO	PO
Part - A (Short Answer Questions)				
1	Define resource recovery.	L5	C03	6
2	What is composting?	L2	C03	2
3	List the stages involved in composting.	L4	C03	6
4	What are the essential conditions for composting?	L5	C03	2
5	Define vermicomposting.	L2	C03	2
6	What is RDF (Refuse Derived Fuel)?	L5	C03	2
7	Define pyrolysis.	L5	C03	5
8	What is gasification?	L5	C03	2
9	State the advantages of energy recovery from waste.	L4	C03	4
10	What are material recovery facilities (MRFs)?	L5	C03	2
Part - B (Long Answer Questions)				
1 1	a) Explain the concept and importance of resource recovery from solid waste.	L5	C03	2
	b) Discuss different material recovery systems and their applications.	L4	C03	2
1 2	a) Explain the biological conversion processes used in waste management.	L5	C03	2
	b) Describe the composting process with a neat flow diagram.	L5	C03	2
1 3	a) Explain pre-processing and post-processing operations in composting.	L5	C03	2
	b) Discuss various types of composting methods.	L1	C03	2
1 4	a) Explain critical parameters affecting composting efficiency.	L5	C03	6
	b) Describe common problems encountered during composting and their remedies.	L1	C03	2
1 5	a) Explain pyrolysis technology for waste treatment and energy recovery.	L2	C03	5
	b) Discuss the process, advantages, and limitations of gasification.	L4	C03	4
1 6	a) Explain RDF production and its applications in waste-to-energy systems.	L5	C03	6
	b) Discuss materials and energy recovery systems with suitable case studies.	L1	C03	2