

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***UG/PG END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2026*****Sixth Semester******Chemical Engineering*****CH3019 – SOLID WASTE MANAGEMENT*****Regulations - 2021******Duration : 3 Hrs******Maximum : 100 Marks******PART – A(ANSWER ALL QUESTIONS) (Marks 10*2=20)***

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	Define Municipal solid waste.	L1	1	2
2.	State the principles of an effective solid waste management.	L1	1	2
3.	What are the 4 R's in waste hierarchy?	L1	2	2
4.	What is the purpose of onsite processing?	L1	2	2
5.	Specify the factors considered in collection of solid waste.	L1	3	2
6.	Differentiate between primary and secondary collection.	L2	3	2
7.	List the four main ways to treat organic biodegradable waste.	L1	4	2
8.	What is municipal solid waste composting?	L1	4	2
9.	How to designate sanitary landfill?	L2	5	2
10.	What is landfill gas? What are its advantages?	L1	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11. a	i Explain the various types of solid waste in detail.	L2	1	8
	ii Summarize the physical and chemical characteristics of Municipal solid wastes.	L2	1	8
	Or			
b	i Explain the factors influencing the solid waste generation waste.	L2	1	8
	ii Outline the need of public awareness and role of NGO's in solid waste management	L2	1	8
12. a	What can you do to reduce solid waste? Explain the resource recovery facility producing various marketable products from municipal solid waste.	L2	2	16
	Or			
b	Discuss briefly about the onsite storage methods.	L2	2	16
13. a	Define transfer station. Explain the role and usefulness of transfer station and selection of site for transfer section.	L2	3	16
	Or			
b	Discuss in detail the present scenario in collection of Municipal solid waste under Indian conditions.	L2	3	16
14. a	Explain the various types of composting techniques of municipal solid waste with suitable process flow diagram.	L2	4	16

Or

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| b | Demonstrate the incineration technologies and air emissions along with its control methods in detail. | L2 | 4 | 16 |
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| 15. a | What is leachate? Mention the various methods of treatment of leachate and disposal. | L1 | 5 | 16 |
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| Or | | | | |
| b | Recall the different methods of landfilling and the operations involved in it with neat sketches. | L1 | 5 | 16 |
