

U.S.N.

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

February / March 2024 Semester End Main Examinations**Programme: B.E.****Branch: Common to all Branches****Course Code: 23CV1ESWMT****Course: Waste Management****Semester: I****Duration: 3 hrs.****Max Marks: 100**

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.			UNIT - I	CO	PO	Marks
	1	a)	Discuss the classification of solid wastes based on source and type	CO1	PO1	7
		b)	Explain environmentally sound solid waste management practices.	CO1	PO1	6
		c)	Explain the factors influencing the solid waste management.	CO1	PO1	7
			UNIT - II			
	2	a)	Explain in detail the physical and chemical characteristics of solid wastes.	CO2	PO1	10
		b)	Describe the following i) Waste stream assessment ii) Health and Environmental effects due to waste generation.	CO2	PO1	10
			UNIT - III			
	3	a)	Explain with neat sketches, hauled container System (HCS) and stationary container System (SCS) of waste collection.	CO2	PO1	10
		b)	Explain with clear diagram components of landfill and factors considered for selection of suitable site for landfill.	CO2	PO1	10
			OR			
	4	a)	Discuss the factors affecting the waste disposal	CO2	PO1	10
		b)	Describe the Environmental effects of landfill.	CO2	PO1	10
			UNIT - IV			
	5	a)	Briefly explain mechanical volume and size reduction techniques which can be adopted in solid waste management.	CO3	PO1	10
		b)	Delineate commonly recycled materials with examples and explicate the process of recycling them.	CO3	PO1	10

			OR			
6	a)	Examine the various techniques available for reduction and recovery of waste		<i>CO3</i>	<i>PO1</i>	10
	b)	Briefly explain the component separation, drying and dewatering of waste.		<i>CO3</i>	<i>PO1</i>	10
		UNIT - V				
7	a)	Explain the Identification and classification of hazardous waste.		<i>CO3</i>	<i>PO1</i>	10
	b)	Discuss the hazardous waste management in India.		<i>CO3</i>	<i>PO1</i>	10

B.M.S.C.E. - ODD SEM 2023-24