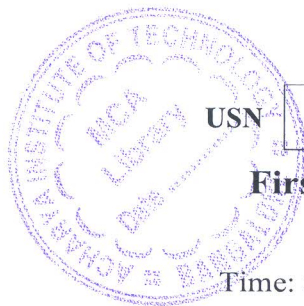


# CBCS SCHEME



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BETCK105F / BETCKF105

First Semester B.E./B.Tech. Degree Examination, Dec.2023/Jan.2024

## Waste Management

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.  
2. M : Marks , L: Bloom's level , C: Course outcomes.

Module – 1				M	L	C
Q.1	a.	Define Solid Waste. Explain the classification of the same based on sources.	10	L2	CO1	
	b.	With a neat flow chart, explain the functional elements of solid waste management system.	10	L2	CO1	
OR						
Q.2	a.	Write short notes on ESSWM (Environmentally Sound Solid Waste Management) and EST (Environment Sound Technology)	10	L2	CO1	
	b.	Explain the various factors affecting Solid Waste Management.	10	L2	CO1	
Module – 2						
Q.3	a.	Describe the Rationale for analysis for Waste Stream Assessment and steps involved in Field investigation.	10	L2	CO1	
	b.	Explain the various factors causing variation in waste quantity and composition of solid wastes.	10	L2	CO1	
OR						
Q.4	a.	Enumerate the various chemical characteristics of solid wastes.	10	L2	CO1	
	b.	Explain the various environmental effects due to inadequate and improper waste management.	10	L2	CO1	
Module – 3						
Q.5	a.	Outline the various factors that influence the waste collection system.	10	L2	CO2	
	b.	Write short notes on : i) Collection vehicle routing ii) Transfer station	10	L2	CO2	

<b>OR</b>					
Q.6	a.	Explain the various disposal options of solid wastes.	10	L2	CO2
	b.	Describe the different processes for the feasibility of disposal of solid waste through sanitary hand-filling.	10	L2	CO2
<b>Module – 4</b>					
Q.7	a.	Explain the process of mechanical volume Reduction.	10	L2	CO2
	b.	List out different components separation techniques used in solid waste management system and explain any two in detail.	10	L1	CO2
<b>OR</b>					
Q.8	a.	Write a note on Drying and Dewatering operations used in SWM.	10	L2	CO3
	b.	What are the various recycling programmes elements used in SWM and explain any two?	10	L2	CO3
<b>Module – 5</b>					
Q.9	a.	Describe the various characteristics of Hazardous wastes.	10	L2	CO4
	b.	Explain the different classification of Hazardous wastes.	10	L2	CO4
<b>OR</b>					
Q.10	a.	Explain the different treatment methods used for Hazardous wastes.	10	L2	CO4
	b.	Write a note on pollution prevention and waste minimization.	10	L2	CO4

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