

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2024****Subject Code: 3160515****Date:20-05-2024****Subject Name: Solid waste Management****Time: 10:30 AM TO 01:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) List characteristics of hazardous waste.	03
	(b) Define hazardous waste. List different sources of hazardous waste.	04
	(c) Describe the physical and chemical properties of municipal solid waste.	07
Q.2	(a) Classify the different sources of municipal solid waste.	03
	(b) Describe hierarchy of Solid waste management.	04
	(c) Explain categories of Biomedical waste.	07
OR		
	(c) Explain sources of E-waste and problems associated with its disposal.	07
Q.3	(a) Enlist the types of Landfills.	03
	(b) Explain the methods of onsite storage and handling of solid waste.	04
	(c) Describe composition of leachate, its effects on environment and ways to control it.	07
OR		
Q.3	(a) List the ill effects of open dumping of solid waste.	03
	(b) Explain the factors considered for landfill site selection.	04
	(c) Describe methods to manage plastic waste.	07
Q.4	(a) List the solid waste materials which can be recycled.	03
	(b) Describe factors affecting the collection system of solid waste.	04
	(c) Describe and Differentiate Hauled container system and Stationery container system with schematic diagram.	07
OR		
Q.4	(a) List various points to be considered while choosing the collection route of vehicle to pick up solid waste.	03
	(b) Explain methods of disposal of solid waste.	04
	(c) Describe the techniques of Energy recovery from solid waste.	07
Q.5	(a) List the parameters affecting the compost process	03
	(b) Explain Trench method of land filling.	04
	(c) Discuss Laws for solid waste management	07

OR

Q.5	(a)	Enlist guidelines for Extended Producer Responsibility	03
	(b)	Explain volume reduction at source for disposal of solid waste.	04
	(c)	Explain recycle, reuse and reduce of solid waste as per the standard practice.	07
