

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-VI (NEW) EXAMINATION – WINTER 2024

Subject Code:3160515

Date:28-11-2024

Subject Name:Solid waste Management

Time:02:30 PM TO 05:00 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) Classify solid waste.	03
(b) Discuss in brief sampling and characteristics of waste.	04
(c) Discuss the need for solid waste management and its Functional elements.	07
Q.2 (a) List composition of Municipal solid waste.	03
(b) Differentiate Reuse and Recycle. Give Examples of each.	04
(c) Discuss Biomedical waste-generation and its management.	07
OR	
(c) Explain in brief about the E-waste-generation and its management.	07
Q.3 (a) Define (i) Rubbish (ii) Garbage (iii) Ash.	03
(b) Discuss the wastes related to manufacturing and packaging industry.	04
(c) Describe with sketch the well system for recovery of gases in landfills.	07
OR	
Q.3 (a) Enlist different types of waste treatment.	03
(b) Describe incineration and pyrolysis.	04
(c) Discuss legal aspects of solid waste disposal.	07
Q.4 (a) Enlist the criteria for landfills-site selection.	03
(b) Describe factors affecting the collection system of solid waste.	04
(c) Explain Haul container system with sketch.	07
OR	
Q.4 (a) Enlist properties of Hazardous waste.	03
(b) Explain the transfer and transport of Hazardous waste.	04
(c) Describe Health impacts of Solid waste Management.	07
Q.5 (a) Explain Segregation.	03
(b) Discuss the waste minimization techniques at source.	04
(c) Discuss the risk assessment with solid waste management.	07
OR	
Q.5 (a) Explain EPR in brief.	03
(b) Explain Area and Trench methods of land filling.	04
(c) Discuss Laws for solid waste management.	07
