

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI(NEW) EXAMINATION – WINTER 2022****Subject Code:3160515****Date:15-12-2022****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 the different sources of municipal solid waste	03
(b) Explain the functional elements of municipal solid	04
(c) Explain issues of solid waste management.	07
Q.2 (a) Enlist types of Solid Waste.	03
(b) Discuss the wastes related to manufacturing and packaging industry.	04
(c) Discuss E-waste-generation and its management.	07
OR	
(c) Discuss Biomedical waste-generation and its management.	07
Q.3 (a) Explain the necessity of landfill gas management	03
(b) Write note on solid waste volume reduction at source	04
(c) Discuss are legal aspects of solid waste disposal	07
OR	
Q.3 (a) Explain Segregation	03
(b) Write a note on vermicomposting.	04
(c) Discuss the design and operation of sanitary landfill	07
Q.4 (a) List the factors affecting collection system	03
(b) Write different methods of landfill disposal.	04
(c) Explain all the collection operations of solid waste in detail.	07
OR	
Q.4 (a) Enlist different types of waste treatment	03
(b) Write note on municipal solid waste in Indian conditions.	04
(c) Explain all the transfer operations of solid waste in detail.	07
Q.5 (a) Write note resource recovery in solid waste.	03
(b) Explain the need for environmental monitoring in landfill disposal technique.	04
(c) Discuss Laws for solid waste management.	07
OR	
Q.5 (a) Describe the risks associated with solid waste managements	03
(b) Explain in brief landfill closure and remediation	04
(c) Explain Characterization and site assessment for solid waste management operations	07
