

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VI (NEW) EXAMINATION – SUMMER 2022

Subject Code:3160515

Date:06/06/2022

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.

- Q.1** (a) List different sources of 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 different types of solid waste. **03**
(b) Explain hierarchy of Solid waste management. **04**
(c) Explain in brief about the E-waste-generation and its management. **07**
- OR**
- (c) Explain in brief about Biomedical waste-generation and its management. **07**
- Q.3** (a) Enlist the criteria for landfills-site selection. **03**
(b) Write a note on incineration. **04**
(c) Describe in brief municipal solid waste in Indian conditions. **07**
- OR**
- Q.3** (a) Enlist the types of Landfills. **03**
(b) State various leachate treatment methods. **04**
(c) Discuss plastic waste disposal and its necessary equipment. **07**
- Q.4** (a) List the factors to be considered for efficient collection system **03**
(b) Summarize the factors affecting the collection system of solid waste **04**
(c) Discuss various collection methods of solid waste management system. **07**
- OR**
- Q.4** (a) List 3 basic types of transfer operations **03**
(b) Enlist the factors to be considered in determining the size of collection and transportation vehicles. **04**
(c) Discuss the transportation systems in solid waste management system. **07**
- Q.5** (a) Explain EPR in brief **03**
(b) Discuss the waste minimization techniques at source. **04**
(c) Discuss the risk assessment associated with solid waste management system.. **07**
- OR**
- Q.5** (a) Enlist EIA methods. **03**
(b) Explain in brief landfill closure and remediation **04**
(c) Discuss Laws for solid waste management. **07**
