

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – SUMMER 2019****Subject Code: 2151307****Date: 19/06/2019****Subject Name: Municipal and industrial 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.

- Q.1** (a) Enlist properties of Hazardous waste. **03**
(b) Calculate waste per annum generated from a city having population of 55 Lac at a rate of 0.5 kg/cap/day. **04**
(c) Describe Haul container system with sketch. **07**
- Q.2** (a) Write down sources of Solid waste. **03**
(b) Discuss On-site processing of Solid waste at household level. **04**
(c) Illustrate Material flow & Waste generation in society. **07**
- OR**
- (c) Categorize Biomedical waste. **07**
- Q.3** (a) Define Composting. **03**
(b) “Plastic waste is bane to Environment”, Argue. **04**
(c) Outline the factors affecting generation of MSW. **07**
- OR**
- Q.3** (a) Define Leachate. **03**
(b) Criticize Public attitude towards segregation of MSW. **04**
(c) Outline the Characteristics of MSW. **07**
- Q.4** (a) Define On-site processing. **03**
(b) Categorize Landfill Liner system. **04**
(c) Describe the transfer and transport of Hazardous waste. **07**
- OR**
- Q.4** (a) Define curbside collection of MSW. **03**
(b) Examine important criteria for Landfill siting. **04**
(c) Describe process of Energy recovery from MSW. **07**
- Q.5** (a) Define Bio-medical waste. **03**
(b) Differentiate between Reuse and Recycle. Give examples of each. **04**
(c) Recommend Solid waste management system for Smart city. **07**
- OR**
- Q.5** (a) Define Municipal Solid waste. **03**
(b) Identify considerations for post-closure care of Landfill. **04**
(c) Describe process of Methane generation by Anaerobic Digester. **07**
