

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2014

Subject code: 1721704

Date: 20-06-2014

Subject Name: Solid Waste Management

Time: 02:30 pm - 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)** What do you mean by physical and chemical characteristics of a solid waste? List out these characteristics and explain one from both, in detail. **07**
- (b)** State various types of matters that solid waste contains. What is putrescible waste? Explain in detail. **07**
- Q.2 (a)** Using the data from latest census explain in detail the challenges of solid waste management in India. **07**
- (b)** In detail, with help of neat diagrams explain functional elements of solid waste management and discuss γ -generation in detail. **07**
- OR**
- (b)** What is segregation in terms of solid waste management? Critically discuss its importance and explain how the same can help in effective solid waste management. **07**
- Q.3 (a)** Explain proximate analysis in detail. **07**
- (b)** What is onsite storage of solid waste? How does the waste container design and location affect the same? **07**
- OR**
- Q.3 (a)** What are different points of view to classify the solid waste collection system? Explain hauled container system in detail. **07**
- (b)** List out factors to be taken into account while designing the layout of solid waste collection. Explain any two in detail. **07**
- Q.4 (a)** Differentiate air separation and magnetic separation with help of neat diagrams. **07**
- (b)** With neat figure explain pyrolysis. **07**
- OR**
- Q.4 (a)** List out conventional methods for land filling dry areas. Explain any one in detail with figures. **07**
- (b)** List out conventional methods for land filling wet areas. Explain any one in detail with figures. **07**
- Q.5 (a)** What are the different factors one should account while selecting the site for solid waste disposal? Explain climatologic conditions in same context in detail. **07**
- (b)** Discuss in detail ó Importance of public participation in effective urban solid waste management. **07**
- OR**
- Q.5 (a)** Short note ó Importance of moisture content in solid waste management. **07**
- (b)** Short note ó The Indian Constitution and Environment. **07**
