Seat No.: Enrolment No GUJARAT TECHNOLOGICAL UNIVERSITY			
M.E –II st SEMESTER–EXAMINATION – JULY- 2012 Subject code: 1721704 Date: 10/07/2012			
Time	Subject Name: Solid Waste Management Time: 10:30 am – 13:00 pm Total Marks		
 Instructions: Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 			
Q.1	(a)	State various types of solid waste. In detail discuss the solid waste scenario in	07
	(b)	India. Mention appropriate statistics. Explain the meaning of 'physical composition of solid waste'. Why moisture content of solid waste is an important measure?	07
Q.2	(a)	Critically discuss health risks related to inadequate management of solid waste.	07
	(b)	What are the different factors that affect the solid waste generation rate? Discuss each in brief.	07
	(b)	Explain the importance of Storage of waste at source. Discuss the types/characteristics of storage bins.	07
Q.3	(a)	What are transfer stations? What are the types of the same? Explain anyone type with compaction unit. Draw diagrams if necessary.	07
	(b)	Explain 'density separation' and 'densification'. OR	07
Q.3	(a)	Explain the importance of source segregation of solid waste in SWM. How does it help in recycling?	07
	(b)	What is magnetic separation? Explain Eddy current separator with diagram.	07
Q.4	(a)	List various combustion systems, and discuss anyone in detail with neat figure.	07
	(b)	Short note with figure – Pyrolysis. OR	07
Q.4	(a)	Short note with figure – Fluidized Bed combustion.	07
Q.4	(b)	Short note – Heat Recovery Systems.	07
Q.5	(a) (b)	Discuss the landfill method as a method of disposal of solid waste. What are the different reactions that occur in a landfill? Discuss each one in brief. Use diagrams if necessary.	07 07
Q.5	(a)	OR What is composting? Discuss the advantages of the same with reference to	07

(b) Explain the scenario of legislations about the management of solid waste in India. Discuss Hazardous Wastes (Management and Handling) Rules, 1989 in

SWM.

the context.