Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V • EXAMINATION - WINTER 2013

Su	bject	Code: 153703 Date: 02y-12-2013	
Subject Name: Solid Waste Management Time: 10.30 am - 01.00 pm Instructions:		0.30 am - 01.00 pm Total Marks: 70	
	1. 2.	Attempt all questions.	
Q.1	(a) (b)	What are the sources and types of solid waste in a community? List out the methods of disposal of solid waste? Explain in detail any two of them.	07 07
Q.2	(a) (b)	Write a short note on Biomedical waste and its management. Explain hierarchy of integrated solid waste management. OR	07 07
	(b)	Explain the physical properties of municipal solid waste in detail.	07
Q.3	(a) (b)	Explain the planning process of solid waste management. Write a short note on Pyrolysis.	07 07
Q.3	(a)	What is waste minimisation? Give the classification of Waste Minimisation (WM) Techniques and discuss them briefly. Define Hazardous waste and explain its characteristics.	07 07
Q.4	(b) (a)	Give a well labelled diagram of a sanitary landfill. Explain the metabolism in a landfill.	07
	(b)	What are the landfill site design objectives and considerations? OR	07
Q.4	(a)	What are the various incineration devices? Give the overview of Rotary kiln incinerator.	07
	(b)	(i) Determine the waste retention time for a rotary kiln operating at 0.9 r/min with a kiln length of 5 m, a diameter of 2.2 m, and a slope of 0.1 m/m.(ii) If the desired retention time is actually to be 7.5 min, what should the rotational velocity be adjusted to?	07
Q.5	(a) (b)	What is the current status of waste sorting in India? Write a short note on the impact of solid waste on the environment. OR	07 07
Q.5	(a)	What are the important components for recycling of waste? What are the benefits of recycling paper and ferrous metals?	07
	(b)	Explain the management of Agriculture waste.	07
