Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE – SEMESTER – V (NEW) EXAMINATION – WINTER 2015

Subject Code: 2151303			Date:05/12/ 2015	
Tiı	ne:1	Attempt all questions. Make suitable assumptions wherever necessary.	70	
Q.1	(a) (b)	What is screen? Explain purposes and types of screens. Draw neat sketch and explain Conventional Waste-water Treatment Plant.	07 07	
Q.2	(a) (b)	Explain various physical and chemical characteristics of water and waste-water. Differentiate between Primary and Secondary treatment. OR	07 07	
	(b)	Derive the Stokes law for determining settling velocity of discrete particles.	07	
Q.3	(a) (b)	Enlist the mechanism of coagulation and describe any two. Explain various types of settling phenomena in water and waste-water treatment.	07 07	
		OR		
Q.3	(a) (b)	What is flocculation? Explain types of flocculation. Write a short note on Mud-ball formation in Sand filter.	07 07	
Q.4	(a) (b)	Explain the construction and working of Slow sand filter with neat sketch. Write a short note on 'Tube Settlers'. OR	07 07	
Q.4	(a) (b)	Write a short note on 'Grit chamber'. Explain the construction and working of Rapid sand filter with neat sketch.	07 07	
Q.5	(a) (b)	Write a short not on Break-point chlorination. Explain aerobic and anaerobic sludge digestion. OR	07 07	
Q.5	(a) (b)	Enlist and explain the disinfectants used for water treatment. Explain Sludge Drying bed and its design criteria.	07 07	
