Seat No.:	Enrolment No.

Subject Code: 151303

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V • EXAMINATION - SUMMER • 2014

Date: 19-06-2014

Su Tir	bject ne: 1 tructio 1. 2.	Attempt all questions.	
Q.1	(a) (b)	Explain various physical and chemical characteristics of water and waste-water. Draw neat sketch and explain Conventional Waste-water Treatment Plant.	07 07
Q.2	(a) (b)	What is screen? Explain purposes and types of screens. Differentiate between Primary and Secondary treatment. OR	07 07
	(b)	Write a short note on 'Grit chamber'.	07
Q.3	(a) (b)	Enlist the mechanism of coagulation and describe any two. Discuss and differentiate between types of settling phenomena in water and waste-water treatment.	07 07
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Q.3	(a) (b)	Differentiate between coagulation and flocculation. Write a short note on 'Tube Settlers'.	07 07
Q.4	(a) (b)	Explain the construction and working of Slow sand filter with neat sketch. Write a short note on 'Filter backwashing'. OR	07 07
Q.4	(a) (b)	Derive the Stokes law for determining settling velocity of discrete particles. Explain the construction and working of Rapid sand filter with neat sketch.	07 07
Q.5	(a) (b)	Enlist and explain the disinfectants used for water treatment. Describe the sources and characteristics of sludge generated in conventional waste-water treatment plant.	07 07
Q.5	(a) (b)	OR Enlist the factors which affect chlorination. Describe the methods normally used to process the sludge before its final disposal.	07 07
