Seat No.:		Enrolment No.	Enrolment No	
GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-V (NEW) - EXAMINATION – SUMMER 2016 Subject Code:2153509 Date:17/05				
	•		C.17/03/2010	
Subject Name:Liquid Effluent Treatment-I Time:02:30 PM to 05:00 PM Total		tal Mawka, 70		
Instructions:			tal Marks: 70	
1113	1.	Attempt all questions. Make suitable assumptions wherever necessary.		
Q.1	(a)	What do you understand by industrial effluent? How it can be manage? Explain briefly.	07	
	(b)	Draw a process flow diagram of a typical conventional efflue treatment plant and explain various levels of treatment.	ent 07	
Q.2	(a)	Write short notes on: a) COD and it's measurementb) Ammonical nitrogen and it's measurement	07	
	(b)	What are the various sources of urban water pollution? Discuss treatment with a conventional method.	its 07	
		OR		
	(b)	Enlist the factors influence the selection of treatment system. Wr the various functions of biological and chemical processes.	ite 07	
Q.3	(a)	Define the term Activated sludge. Explain the working of Asprocess.	SP 07	
	(b)	Briefly explain the water distribution layouts.	07	
		OR		
Q.3	(a)	Briefly explain the principle and working of trickling filter	07	
	(b)	What do you mean by disinfection? Explain various methods disinfection.	of 07	
Q.4	(a)	What is the principle of MBR? What are the advantage a disadvantage of MBR?	nd 07	
	(b)	What are the sources of industrial effluent? How the quality of efflue can be assessed. Discuss briefly	ent 07	
		OR		
0.4	(a)	Enlist the various unit system used for industrial effluent treatment	in 07	

chemical industries. Explain the working of neutralization and

Briefly explain the Clean water Act (CWA), 1972 with its silent

equalization tank.

feature.

(b)

07

Q.5 (a) Write a brief notes on water borne disease.
(b) What do you mean Advance waste water treatment? Enlist various methods and explain electrochemical oxidation method with example.

OR

- Q.5 (a) What is Coagulation and flocculation process? Explain various factors 07 affects the co-agulation process.
 - (b) Enlist the main unit and discuss any one of them normally provided for each of the following system:
 - a) Secondary treatment
 - b) Tertiary treatment
