Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

Subject Code: 2711702

ME - SEMESTER-I(New course) • EXAMINATION - WINTER- 2015

Date: 01/01/2016

Subject Name: Environmental Chemistry & Microbiology Time: 2:30 pm to 5:00 pm Instructions: Total Marks: 7		70	
	1. 2.	Attempt all questions.	
Q.1	(a) (b)	Explain role of microorganisms in environment. Bring out the environmental significance of DO and BOD.	07 07
Q.2	(a) (b)	What is adsorption? Briefly explain Freundlich and Langmuir isotherm. Write short note on spectrophotometer with neat diagram. OR	07 07
	(b)	Explain principle of flame photometry with diagram. Write down its application.	07
Q.3	(a) (b)	Explain the growth curve of microbes. Write short note on Gas Chromatography with neat diagram. OR	07 07
Q.3	(a) (b)	Explain a typical bacterial cell with diagram. What is the principle of colorimetric analysis? Explain its application for analysis of any one water quality parameter.	07 07
Q.4	(a) (b)	Explain the working principle and operation of Nephelo turbidity meter with neat sketch. Discuss determination of Alkalinity and Hardness of water sample.	07 07
Q.4	(a) (b)	OR Give the classification of solids and explain each term in detail. Discuss determination of COD test of wastewater sample.	07 07
Q.5	(a) (b)	What is Virus? Explain "Bacteriophases". What is MPN? Briefly explain different tests used to measure MPN. OR	07 07
Q.5	(a) (b)	Name Various Staining technique. Discuss Gram Staining. Enlist various microscopes and explain any one in detail.	07 07
