Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–IV EXAMINATION – SUMMER 2016

Subject Code:141302 **Date:03/06/2016**

Subject Name:Environmental Sciences-II

Time:10:30 AM to 01:00 PM **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Explain the kinetic approach of Chemical equilibrium.	**07**
	(b)	Explain Ionization of weak acids with examples.	**07**
Q.2	**(a)**	Explain phenomena of Common Ion effect with suitable examples.	**07**
	(b)	Write a short note on Binary mixtures.	**07**
		OR	
	(b)	How will you determine Oil and Grease in laboratory?	**07**
Q.3	**(a)**	Differentiate between BOD and COD.	**07**
	(b)	Write short note on Osmosis.	**07**
		OR	
Q.3	**(a)**	How dilution water for BOD test is prepared in laboratory.	**07**
	(b)	Explain Complex Ion formation with suitable examples.	**07**
Q.4	**(a)**	Explain working principle of COD determination with examples.	**07**
	(b)	Explain Dialysis with neat sketch.	**07**
		OR	
Q.4	**(a)**	Write short note on Biodegradation of Organic compounds.	**07**
	(b)	Write down the sources of Acidity in Water and Wastewater.	**07**
Q.5	**(a)**	Explain Solubility products with suitable examples.	**07**
	(b)	Explain the principle of Solvent Extraction.	**07**
		OR	
Q.5	**(a)**	Explain environmental significance of Solids.	**07**
	(b)	Explain modified Winkler method for DO determination.	**07**

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