

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-IV • EXAMINATION – SUMMER 2013

Subject Code: 141302

Date: 12-06-2013

Subject Name: Environmental Sciences-II

Time: 10:30am – 01:00pm

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 Ionization of weak acids with examples. **07**
(b) Write short note on Osmosis. **07**
- Q-2** (a) Give the difference between organic compounds and Inorganic compounds with examples. **07**
(b) Explain working principle of COD determination with Examples. **07**
- OR
- (b) Explain the following terms in detail **07**
(i) Tyndall effect (ii) Brownian movement.
- Q-3** (a) How will you determine Oil and Grease in laboratory? **07**
(b) Write the sources of hardness in water. **07**
- OR
- Q-3** (a) Write short note on Adsorption. **07**
(b) Explain principles of Solvent Extraction. **07**
- Q-4** (a) Define with suitable examples: **07**
(i) Primary alcohol (ii) Secondary alcohol (iii) tertiary alcohol
(b) Write the sources of Acidity in waste water and water. **07**
- OR
- Q-4** (a) Explain modified Winkler Method with Chemical Reaction for DO Determination. **07**
(b) Explain environmental significance of solids. **07**
- Q-5** (a) Explain Dialysis with neat sketch. **07**
(b) Explain principle of Solvent Extraction. **07**
- OR
- Q-5** (a) Give the basic difference between BOD and COD. **07**
(b) Write the purpose of addition of seed and dilution water in BOD bottle. **07**
