

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – WINTER • 2014****Subject Code: 131301****Date: 20-12-2014****Subject Name: Environmental Science - I****Time: 02.30 pm - 05.00 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 application of Henry's law in Environmental Engineering field. **07**
(b) Write a short note on Familiarization of Laboratory. **07**
- Q.2** (a) Differentiate between Gravimetric analysis and Volumetric analysis. **07**
(b) Write a short note on Standard Methods used in analytical work. **07**
- OR**
- (b) Explain the Dalton's law in detail. **07**
- Q.3** (a) What is the importance of Calibration of glass wares and instruments? **07**
(b) Write a short note on Zeolite Method for removal of Hardness. **07**
- OR**
- Q.3** (a) Differentiate between Normal solution and Molar solution. **07**
(b) How will you determine TS, TDS and TSS from wastewater? **07**
- Q.4** (a) Differentiate between Primary standards and Secondary standards. **07**
(b) Write a short note on Carbonate Hardness and Non-Carbonate Hardness. **07**
- OR**
- Q.4** (a) Write a short note on Kjeldah Method. **07**
(b) What are the causes and sources Hardness? **07**
- Q.5** (a) Determine the pH of (i) 0.02 N HCL, (ii) 0.02 N H₂SO₄ **07**
(b) Write a short note on Conductivity Meter. **07**
- OR**
- Q.5** (a) Write a short note on Nephelo Turbidity Meter. **07**
(b) Explain Mohr's Method for determination of Chlorides. **07**
