GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-V • EXAMINATION – WINTER 2014

Subject Code: 151302 Date: 28/11/2014 Subject Name: Advanced Environmental Instrumentation. Time: 10.30 am - 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 Write the working principle of Flame Photometer. 07 (a) Derive and explain Lambert's and Beer's law. **(b)** 07 What is Advanced Environmental Instrumentation? What is its Importance? **O.2 (a)** 07 Write a short note on "Spectrophotometer" with neat sketch. **(b)** 07 OR Write the working principle of Ion Selective meter. 07 **(b) Q.3** (a) Write a short note on pH meter. 07 Write a short note on Gas Chromatograph. **(b)** 07 OR Q.3 **(a)** What is Chromatography? Explain stationary phase in Chromatography. 07 **(b)** Write a short note on TOC analyzer. 07 **O.4** Write a short note on Nephelo Turbidity Meter. 07 (a) Write a short note on Conductivity Meter. **(b)** 07 OR Write a short note on Bio-assay test. 07 **O.4 (a)** Give the applications of High Performance Liquid Chromatography. **(b)** 07 **Q.5 (a)** Write a short note on Standard Hydrogen Electrode. 07 Write a short note on Frequency distribution curve. **(b)** 07 OR Explain the term with examples (i) Standard Deviation (ii) Relative Deviation **Q.5** (a) 07 Write a short note on Atomic Adsorption Spectroscopy. **(b)** 07
