

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.

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| Q.1 | (a) | Write the working principle of Flame Photometer. | 07 |
| | (b) | Derive and explain Lambert's and Beer's law. | 07 |
| Q.2 | (a) | What is Advanced Environmental Instrumentation? What is its Importance? | 07 |
| | (b) | Write a short note on "Spectrophotometer" with neat sketch. | 07 |
| OR | | | |
| | (b) | Write the working principle of Ion Selective meter. | 07 |
| Q.3 | (a) | Write a short note on pH meter. | 07 |
| | (b) | Write a short note on Gas Chromatograph. | 07 |
| OR | | | |
| Q.3 | (a) | What is Chromatography? Explain stationary phase in Chromatography. | 07 |
| | (b) | Write a short note on TOC analyzer. | 07 |
| Q.4 | (a) | Write a short note on Nephelo Turbidity Meter. | 07 |
| | (b) | Write a short note on Conductivity Meter. | 07 |
| OR | | | |
| Q.4 | (a) | Write a short note on Bio-assay test. | 07 |
| | (b) | Give the applications of High Performance Liquid Chromatography. | 07 |
| Q.5 | (a) | Write a short note on Standard Hydrogen Electrode. | 07 |
| | (b) | Write a short note on Frequency distribution curve. | 07 |
| OR | | | |
| Q.5 | (a) | Explain the term with examples (i) Standard Deviation (ii) Relative Deviation | 07 |
| | (b) | Write a short note on Atomic Adsorption Spectroscopy. | 07 |
