

IV B.Tech I Semester Supplementary Examinations, November 2005

ANALYTICAL INSTRUMENTATION

(Electronics & Instrumentation Engineering)

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. With neat sketches explain the various methods for the measurement of electrolytic conductance. [16]
2. Explain how silica analysis is done in boiler water of power plant. [16]
3. Compare and list out the merits and demerits of non-dispersive infrared analyzer over gas chromatography in carbon monoxide estimation. [16]
4. Explain the various evaluation methods in chromatography system? [16]
5. What is a spectrophotometer and explain a typical UV/ visible spectrometer using double beam. [16]
6. (a) Explain briefly about an atomic absorption Spectroscope.
(b) What are the problems of AAS? [8+8]
7. (a) Write down the needs of mass Spectrometer.
(b) Discuss the merits of various types of mass Spectrometer. [8+8]
8. Explain the constructional details and principle of operation of
(a) surface barrier detector.
(b) lithium drifted germanium detector. [8+8]
