

Code No: R05311002

Set No. 1

III B.Tech I Semester Regular Examinations, November 2008
INDUSTRIAL INSTRUMENTATION
(Electronics & Instrumentation Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Enumerate the characteristics of comparators? Mention the use of comparator?
(b) What are pneumatic comparators? Explain any one in detail. [6+10]
2. (a) Describe an optical measurement of rpm measurement? How is the rpm converted in to voltage or any other electrical quantity? Give necessary sketches.
(b) Explain the working of AC tachogenerator? Enumerate the advantages over DC tachogenerator. [8+8]
3. What are load cells? Describe a magneto elastic load cell and strain gauge load cell. How do they differ in operations aspects? [16]
4. What is vacuum gauge? What are the different types of vacuum gauges? Explain. [16]
5. Write a short notes on Head meters used for flow measurement and explain Venturi meter and Orifice plates. [16]
6. Define density and explain its measurement by using most popular device. [16]
7. Explain characteristics of photo detectors and explain any one commonly used photo detector. [16]
8. Explain the Mechanical Resonance Type Frequency Meter with diagram. [16]
