

**R09**

**Code No: 09A70304**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech IV Year I Semester Examinations, May/June - 2013**

**Instrumentation and Control Systems  
(Common to ME, AME)**

**Time: 3 Hours**

**Max. Marks: 75**

**Answer any Five Questions  
All Questions Carry Equal Marks**

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1. Explain the dynamic performance characteristics of measuring instruments. [15]
- 2.a) Explain the calibration procedure for inductive transducer.  
b) Explain the construction and working of pyrometer. [7+8]
3. With the help of suitable diagram explain the construction, working and principal features of bourdon tube pressure gauge. [15]
- 4.a) Describe the construction of bubbler level indicator.  
b) Explain the use of rotameter for flow measurement. [7+8]
5. What is the working principle of stroboscope? Explain its working and applications. [15]
6. Explain the use of resistance strain gauges for the measurement of bending and compressive strains. [15]
- 7.a) Explain the working of dew point meter.  
b) Explain the working principle of torsion meter. [7+8]
- 8.a) Differentiate between open and closed loop control systems.  
b) Describe the features of servomechanism. [7+8]

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