

R09**Code: 9A10502**

B.Tech III Year I Semester (R09) Supplementary Examinations December 2015

INDUSTRIAL INSTRUMENTATION
(Electronics and Instrumentation Engineering)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) What are the different techniques used for angle measurement?
(b) Discuss any one optical method for the measurement of length.
- 2 (a) Discuss any one technique of translational velocity measurement.
(b) What are stroboscopic methods? Discuss any one in detail.
- 3 (a) Narrate different methods of force measurement.
(b) With the help of a neat sketch explain the functionality of a dynamometer.
- 4 (a) Discuss the mercury in glass type thermometer with a neat sketch.
(b) Explain the principle, working of thermal conductivity gage as applied to pressure measurement.
- 5 (a) How do you classify the different types of flow meters?
(b) Explain the functionality of Laser Doppler velocity meter.
- 6 (a) Discuss the working of a bimetallic type thermometer.
(b) Explain the principle and working of an optical pyrometer.
- 7 (a) Discuss different types of float operated devices for level measurement.
(b) Explain the ultrasonic method of level measurement system.
- 8 Write a brief note on the following:
 - (a) Radiation detectors.
 - (b) Humidity measurement.
 - (c) Phase angle measurement.
 - (d) Resistance thermometer.
