

Code: R7 311005

B.Tech III Year I Semester (R07) Supplementary Examinations, May 2012

INDUSTRIAL INSTRUMENTATION

(Electronics and Instrumentation Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions

All questions carry equal marks

- 1 Write short notes on:
 - (a) Measurement of plainness.
 - (b) Measurement of area.
 - (c) Measurement of diameter and
 - (d) Measurement of angle.

- 2 (a) Describe, with sketches the basic principle of working of a stroboscope method.
(b) Explain the working of translational velocity measurement.

- 3 (a) What is a proving ring? How is it used to measure force?
(b) Explain the working of a gyroscopic force measurement.

- 4 (a) What are the different types of manometer used? Sketch each of them and explain their operating principles.
(b) Explain about the dead weight pressure gauge.

- 5 (a) Explain the working of ultrasonic flow meters. What are its limitations and how are they over come?
(b) Explain the working of Laser doppler veloci-meter.

- 6 (a) Explain the strain gauge load cell method for density measurement.
(b) Explain the working principle of air-pressure balance method.

- 7 (a) Explain about optical pyrometer.
(b) Explain with diagram the working of a platinum resistance thermometer.

- 8 (a) Explain in detail about humidity measurement.
(b) Explain the sound level meter.
