R07

Code: R7311005

B.Tech III Year I Semester (R07) Supplementary Examinations, May 2013

INDUSTRIAL INSTRUMENTATION

(Electronics & Instrumentation Engineering)

Time: 3 hours Max. Marks: 80

Answer any FIVE questions

All questions carry equal marks

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1 (a) Explain in detail about the measurement of gauge blocks.
(b) Explain with a neat sketch any type of comparator. Also list the advantages of magnification adopted.

2 (a) With neat sketch, explain rotational velocity measurement.
(b) Describe in detail about the indicators used for the detection of acceleration.

3 (a) Explain briefly the various methods of torque measurements in the field of industrial instrumentation.
(b) Discuss briefly about the vibrating wire force transducer.

4 (a) Explain about the thermal conductivity gauges and ionization gauges.
(b) What is manometer? Explain about the different types of manometers.

5 (a) Explain briefly about the positive displacement type flow measurement.
(b) Discuss in detail about the hotwire anemometer type flow measurement.

6 (a) Explain about the air-pressure balance method.
(b) Discuss briefly the Buoyancy method of determining the density.

7 (a) Explain in detail about the radiation thermometers.
(b) Discuss the basic principles of radiation measurements.

8 Write short notes on the following:
(a) Sound level meter.
(b) Liquid level measurements.
(c) Frequency measurements.

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