

Code.No: RR311003

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SET-1

III B.TECH – I SEM EXAMINATIONS, NOVEMBER - 2010
INDUSTRIAL INSTRUMENTATION
(ELECTRONICS AND INSTRUMENTATION ENGINEERING)

Time: 3hours**Max.Marks:80**

Answer any FIVE questions
All questions carry equal marks

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1. Explain in detail the concepts of contacting and non-contacting type of length measurements taking example for each. [16]
- 2.a) Describe the basic principles involved in revolution counters and timers.
b) Explain the working of gyroscopes. [8+8]
- 3.a) Discuss the characteristics of elastic force transducers.
b) Explain RVDT for torsion measurement. [8+8]
- 4.a) Explain the working of thermal conductivity gauges.
b) Explain the principle of working of dead-weight pressure gauges. [8+8]
- 5.a) Explain the working of electromagnetic flow meter.
b) Describe the principle of operation of rotameter. [8+8]
6. Write short notes on:
a) Buoyancy method of density measurement.
b) Gama ray method. [8+8]
- 7.a) Explain difference between thermal and photos detectors w.r.t. their characteristics.
b) Write a short note on black body radiation. [8+8]
8. Write short notes on:
a) Dew point hygrometer.
b) Chemical composition measurement. [8+8]

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SET-2

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(ELECTRONICS AND INSTRUMENTATION ENGINEERING)

Time: 3hours**Max.Marks:80**

Answer any FIVE questions
All questions carry equal marks

- - -

- 1.a) Discuss the characteristics of elastic force transducers.
b) Explain RVDT for torsion measurement. [8+8]
- 2.a) Explain the working of thermal conductivity gauges.
b) Explain the principle of working of dead-weight pressure gauges. [8+8]
- 3.a) Explain the working of electromagnetic flow meter.
b) Describe the principle of operation of rotameter. [8+8]
4. Write short notes on:
a) Buoyancy method of density measurement.
b) Gama ray method. [8+8]
- 5.a) Explain difference between thermal and photos detectors w.r.t. their characteristics.
b) Write a short note on black body radiation. [8+8]
6. Write short notes on:
a) Dew point hygrometer.
b) Chemical composition measurement. [8+8]
7. Explain in detail the concepts of contacting and non-contacting type of length measurements taking example for each. [16]
- 8.a) Describe the basic principles involved in revolution counters and timers.
b) Explain the working of gyroscopes. [8+8]

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SET-3

III B.TECH – I SEM EXAMINATIONS, NOVEMBER - 2010
INDUSTRIAL INSTRUMENTATION
(ELECTRONICS AND INSTRUMENTATION ENGINEERING)

Time: 3hours**Max.Marks:80**

Answer any FIVE questions
All questions carry equal marks

- 1.a) Explain the working of electromagnetic flow meter.
b) Describe the principle of operation of rotameter. [8+8]
2. Write short notes on:
a) Buoyancy method of density measurement.
b) Gama ray method. [8+8]
- 3.a) Explain difference between thermal and photos detectors w.r.t. their characteristics.
b) Write a short note on black body radiation. [8+8]
4. Write short notes on:
a) Dew point hygrometer.
b) Chemical composition measurement. [8+8]
5. Explain in detail the concepts of contacting and non-contacting type of length measurements taking example for each. [16]
- 6.a) Describe the basic principles involved in revolution counters and timers.
b) Explain the working of gyroscopes. [8+8]
- 7.a) Discuss the characteristics of elastic force transducers.
b) Explain RVDT for torsion measurement. [8+8]
- 8.a) Explain the working of thermal conductivity gauges.
b) Explain the principle of working of dead-weight pressure gauges. [8+8]

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SET-4

III B.TECH – I SEM EXAMINATIONS, NOVEMBER - 2010
INDUSTRIAL INSTRUMENTATION
(ELECTRONICS AND INSTRUMENTATION ENGINEERING)

Time: 3hours**Max.Marks:80**

Answer any FIVE questions
All questions carry equal marks

- - -

- 1.a) Explain difference between thermal and photos detectors w.r.t. their characteristics.
b) Write a short note on black body radiation. [8+8]
2. Write short notes on:
a) Dew point hygrometer.
b) Chemical composition measurement. [8+8]
3. Explain in detail the concepts of contacting and non-contacting type of length measurements taking example for each. [16]
- 4.a) Describe the basic principles involved in revolution counters and timers.
b) Explain the working of gyroscopes. [8+8]
- 5.a) Discuss the characteristics of elastic force transducers.
b) Explain RVDT for torsion measurement. [8+8]
- 6.a) Explain the working of thermal conductivity gauges.
b) Explain the principle of working of dead-weight pressure gauges. [8+8]
- 7.a) Explain the working of electromagnetic flow meter.
b) Describe the principle of operation of rotameter. [8+8]
8. Write short notes on:
a) Buoyancy method of density measurement.
b) Gama ray method. [8+8]

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