Code No: R05222201 **R05** **Set No. 2**

II B.Tech II Semester Examinations,December 2010
INDUSTRIAL INSTRUMENTATION
Instrumentation And Control Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

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1. Write short notes on hot wire anemometers. [16]
2. (a) What differential or absolute pressure measurement system? Explain.
   (b) Explain bonded foil strain gauge pressure transducer with neat sketch. [8+8]
3. Explain what is the principle of measuring larger bore diameters? Explain four ball method for measuring diameter of bore. [16]
4. (a) Explain the basic methods of force measurement.
   (b) Discuss in detail how strain gauges are used to measure torque. [8+8]
5. Name any 2 types of frequency meters and explain them in detail along with diagrams. [16]
6. Explain which instrument can be used to measure temperatures where peak radiation emission is in red part of visible spectrum. [16]
7. (a) Explain the measurement of linear velocity using electromagnetic tachometer.
   (b) Discuss in detail seismic or absolute velocity pickups with frequency response curves. [8+8]
8. Write short notes on strain gauge load cell method. [16]

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Code No: R05222201 **R05** **Set No. 4**

II B.Tech II Semester Examinations,December 2010
INDUSTRIAL INSTRUMENTATION
Instrumentation And Control Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

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1. Write short notes on hot wire anemometers. [16]
2. Explain which instrument can be used to measure temperatures where peak radiation emission is in red part of visible spectrum. [16]
3. Write short notes on strain gauge load cell method. [16]
4. Explain what is the principle of measuring larger bore diameters? Explain four ball method for measuring diameter of bore. [16]
5. (a) Explain the basic methods of force measurement.
   (b) Discuss in detail how strain gauges are used to measure torque. [8+8]
6. Name any 2 types of frequency meters and explain them in detail along with diagrams. [16]
7. (a) Explain the measurement of linear velocity using electromagnetic tachometer.
   (b) Discuss in detail seismic or absolute velocity pickups with frequency response curves. [8+8]
8. (a) What differential or absolute pressure measurement system? Explain.
   (b) Explain bonded foil strain gauge pressure transducer with neat sketch. [8+8]

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Code No: R05222201 **R05** **Set No. 1**

II B.Tech II Semester Examinations,December 2010
INDUSTRIAL INSTRUMENTATION
Instrumentation And Control Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) What differential or absolute pressure measurement system? Explain.
   (b) Explain bonded foil strain gauge pressure transducer with neat sketch. [8+8]
2. Explain which instrument can be used to measure temperatures where peak radiation emission is in red part of visible spectrum. [16]
3. (a) Explain the measurement of linear velocity using electromagnetic tachometer.
   (b) Discuss in detail seismic or absolute velocity pickups with frequency response curves. [8+8]
4. Write short notes on strain gauge load cell method. [16]
5. Name any 2 types of frequency meters and explain them in detail along with diagrams. [16]
6. Write short notes on hot wire anemometers. [16]
7. Explain what is the principle of measuring larger bore diameters? Explain four ball method for measuring diameter of bore. [16]
8. (a) Explain the basic methods of force measurement.
   (b) Discuss in detail how strain gauges are used to measure torque. [8+8]

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Code No: R05222201 **R05** **Set No. 3**

II B.Tech II Semester Examinations,December 2010
INDUSTRIAL INSTRUMENTATION
Instrumentation And Control Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) What differential or absolute pressure measurement system? Explain.
   (b) Explain bonded foil strain gauge pressure transducer with neat sketch. [8+8]
2. Write short notes on strain gauge load cell method. [16]
3. Write short notes on hot wire anemometers. [16]
4. Explain what is the principle of measuring larger bore diameters? Explain four ball method for measuring diameter of bore. [16]
5. (a) Explain the basic methods of force measurement.
   (b) Discuss in detail how strain gauges are used to measure torque. [8+8]
6. (a) Explain the measurement of linear velocity using electromagnetic tachometer.
   (b) Discuss in detail seismic or absolute velocity pickups with frequency response curves. [8+8]
7. Name any 2 types of frequency meters and explain them in detail along with diagrams. [16]
8. Explain which instrument can be used to measure temperatures where peak radiation emission is in red part of visible spectrum. [16]

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