

Code No: R05311002

**R05**

**Set No. 2**

**III B.Tech I Semester Examinations, December 2011**

**INDUSTRIAL INSTRUMENTATION**

**Electronics And Instrumentation Engineering**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions  
All Questions carry equal marks**

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1. Explain how an infrared radiation detector is scanned across an object. [16]
2. (a) Describe briefly about the basic principle of resolution counters and timers.  
(b) Discuss in detail deflection type accelerometer. [8+8]
3. What are load cells? Describe a magneto elastic load cell and strain gauge load cell. How do they differ in operation aspects? [16]
4. Explain the concepts of contacting and non-contacting type of length measurement with examples. [16]
5. Explain a mechanical method for measurement of density. [16]
6. What is the use of Microphone and explain the types of Microphones. [16]
7. What is vacuum gauge? What are the different types of vacuum gauges? Explain. [16]
8. Explain on what principle the vortex meter operate along with the diagram. [16]

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Code No: R05311002

**R05**

**Set No. 4**

**III B.Tech I Semester Examinations, December 2011**

**INDUSTRIAL INSTRUMENTATION**

**Electronics And Instrumentation Engineering**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions**

**All Questions carry equal marks**

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1. Explain on what principle the vortex meter operate along with the diagram. [16]
2. What is the use of Microphone and explain the types of Microphones. [16]
3. (a) Describe briefly about the basic principle of resolution counters and timers.  
(b) Discuss in detail deflection type accelerometer. [8+8]
4. What is vacuum gauge? What are the different types of vacuum gauges? Explain. [16]
5. Explain how an infrared radiation detector is scanned across an object. [16]
6. What are load cells? Describe a magneto elastic load cell and strain gauge load cell. How do they differ in operation aspects? [16]
7. Explain the concepts of contacting and non-contacting type of length measurement with examples. [16]
8. Explain a mechanical method for measurement of density. [16]

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**R05**

**Set No. 1**

**III B.Tech I Semester Examinations, December 2011**

**INDUSTRIAL INSTRUMENTATION**

**Electronics And Instrumentation Engineering**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions**

**All Questions carry equal marks**

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1. What is vacuum gauge? What are the different types of vacuum gauges? Explain. [16]
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4. (a) Describe briefly about the basic principle of resolution counters and timers.  
(b) Discuss in detail deflection type accelerometer. [8+8]
5. Explain the concepts of contacting and non-contacting type of length measurement with examples. [16]
6. What is the use of Microphone and explain the types of Microphones. [16]
7. Explain a mechanical method for measurement of density. [16]
8. What are load cells? Describe a magneto elastic load cell and strain gauge load cell. How do they differ in operation aspects? [16]

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Code No: R05311002

**R05**

**Set No. 3**

**III B.Tech I Semester Examinations, December 2011**

**INDUSTRIAL INSTRUMENTATION**

**Electronics And Instrumentation Engineering**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions  
All Questions carry equal marks**

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1. What is the use of Microphone and explain the types of Microphones. [16]
2. Explain the concepts of contacting and non-contacting type of length measurement with examples. [16]
3. What is vacuum gauge? What are the different types of vacuum gauges? Explain. [16]
4. (a) Describe briefly about the basic principle of resolution counters and timers.  
(b) Discuss in detail deflection type accelerometer. [8+8]
5. What are load cells? Describe a magneto elastic load cell and strain gauge load cell. How do they differ in operation aspects? [16]
6. Explain how an infrared radiation detector is scanned across an object. [16]
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8. Explain on what principle the vortex meter operate along with the diagram. [16]

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