Code No: R05410402 **R05** **Set No. 2**

IV B.Tech I Semester Examinations,NOVEMBER 2010
ELECTRONIC MEASUREMENTS INSTRUMENTATION
Electronics And Communication Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Write short notes on computer based Data Acquisition System?
   (b) Write short notes on Date loggers? [8+8]
2. (a) Draw the circuit of a schering bridge and discuss its principle with the help of suitable derivations and phasor diagram at balance.
   (b) Write a short note on the dissipation factor of a capacitor. [10+6]
3. (a) With respect to construction and circuit configuration, explain how a square wave generator differs from sine wave generator.
   (b) With a neat block diagram discuss about an AF sine wave generator. [8+8]
4. (a) Explain the term true R.M.S. corresponding voltmeter and where is it used?
   (b) Distinguish between functions of the following:
      i. Electronic analog voltmeter
      ii. Digital multimeter
      iii. a.c. milli voltmeter and
      iv. true RMS voltmeter. [8+8]
5. (a) Mention the important precautions to be taken when using a sampling oscilloscope.
   (b) With a block diagram, explain the operation of 8-bit flash converter. [8+8]
6. (a) A CRT has an anode voltage of 2000V and parallel deflecting plates of 2cm long and 5mm apart. The screen is 30cm from the centre of the plates. Find the input voltage required to deflect the beam through 3cm. The input voltage is applied to the deflecting plates through amplifiers having an overall gain of 100.
   (b) Discuss the timing relations and CRT displays of four common sweep modes. [10+6]
7. (a) Distinguish between spectrum analyzer and harmonic distortion analyzer.
   (b) Describe a signature analyzer and explain usage in locating faults in digital circuits. [8+8]
8. (a) Explain the working principle of a foil type strain gauge.
   (b) Describe the principle of the operation of Inductive transducer type of pressure transducer. [8+8]

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Code No: R05410402 **R05** **Set No. 4**

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ELECTRONIC MEASUREMENTS INSTRUMENTATION
Electronics And Communication Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Write short notes on computer based Data Acquisition System?
   (b) Write short notes on Date loggers? [8+8]
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   (b) With a block diagram, explain the operation of 8-bit flash converter. [8+8]
3. (a) Explain the working principle of a foil type strain gauge.
   (b) Describe the principle of the operation of Inductive transducer type of pressure transducer. [8+8]
4. (a) With respect to construction and circuit configuration, explain how a square wave generator differs from sine wave generator.
   (b) With a neat block diagram discuss about an AF sine wave generator. [8+8]
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8. (a) Explain the term true R.M.S. corresponding voltmeter and where is it used?
   (b) Distinguish between functions of the following:
      i. Electronic analog voltmeter
      ii. Digital multimeter
      iii. a.c. milli voltmeter and

iv. true RMS voltmeter. [8+8]

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Code No: R05410402 **R05** **Set No. 1**

IV B.Tech I Semester Examinations,NOVEMBER 2010
ELECTRONIC MEASUREMENTS INSTRUMENTATION
Electronics And Communication Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

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5. (a) With respect to construction and circuit configuration, explain how a square wave generator differs from sine wave generator.
   (b) With a neat block diagram discuss about an AF sine wave generator. [8+8]
6. (a) Write short notes on computer based Data Acquisition System?
   (b) Write short notes on Date loggers? [8+8]
7. (a) Draw the circuit of a schering bridge and discuss its principle with the help of suitable derivations and phasor diagram at balance.
   (b) Write a short note on the dissipation factor of a capacitor. [10+6]
8. (a) Explain the working principle of a foil type strain gauge.
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Code No: R05410402 **R05** **Set No. 1**

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Code No: R05410402 **R05** **Set No. 3**

IV B.Tech I Semester Examinations,NOVEMBER 2010
ELECTRONIC MEASUREMENTS INSTRUMENTATION
Electronics And Communication Engineering

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

Answer any FIVE Questions
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   (b) Discuss the timing relations and CRT displays of four common sweep modes. [10+6]
7. (a) Mention the important precautions to be taken when using a sampling oscilloscope.
   (b) With a block diagram, explain the operation of 8-bit flash converter. [8+8]
8. (a) Write short notes on computer based Data Acquisition System?

(b) Write short notes on Date loggers? [8+8]

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