

Code: R7421906

**R7**

B.Tech IV Year II Semester (R07) Supplementary Examinations, March/April 2013

**ELECTRONIC MEASUREMENTS & INSTRUMENTATION**

(Electronics and Computer Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions

All questions carry equal marks

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- 1 (a) A pressure indicator showed reading as 89 bar on a scale range of 0-100 bar, but the true value was 88.5 bar determine  
(i) Static error. (ii) Static correction and (iii) Relative static error.  
(b) What are static characteristics? How do they differ from dynamic characteristics?
- 2 (a) Explain briefly circuits used in pulse generation.  
(b) Describe the working of 'function generator' with a neat block diagram.
- 3 (a) Describe briefly "real time spectral analyzer". State its advantages and disadvantages.  
(b) Discuss briefly resonant or basic wave analyzer.
- 4 (a) Explain the functioning of a time-base generator in a CRO.  
(b) In a CRT, the anode to cathode voltage is 2000 V density of magnetic field to produce a deflection of 4 cm on the screen.  
(c) Give the comparison between dual trace and dual beams oscilloscopes.
- 5 (a) What is a probe? Explain high impedance probe.  
(b) Explain the functioning of a time-base generator in CRO.
- 6 (a) Explain with the help of circuit, the principle of working of Q-meter.  
(b) Explain the problems associated with measurement of resistance, inductance and capacitance at high frequencies.
- 7 (a) What is piezoelectric transducer? List the advantages and disadvantages of piezoelectric transducer.  
(b) Explain briefly variable reluctance transducer.
- 8 (a) Explain briefly bourdon tube pressure element.  
(b) State the advantages disadvantages and applications of bimetallic thermometers.

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