

Total No. of Questions : 8]

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Roll No.....

**EI/IC-304**

**B.E. III Semester**

Examination, December 2016

**Measurement Science and Techniques**

*Time : Three Hours*

*Maximum Marks : 70*

- Note:* i) Attempt any five questions. Total eight questions.  
ii) All questions carry equal marks.  
iii) Assume suitable data wherever necessary.

1. a) Differentiate between Accuracy and precession. 7  
b) Discuss loading effects in measurement system. 7
2. a) Explain working of Hot iron instruments. 7  
b) Discuss instrument transformer. 7
3. a) Explain working of Maxwell's bridge for the measurement of inductance. 7  
b) Discuss ohm meter and working principle. 7
4. a) Explain working of Ramp-Type voltmeter (DVM). 7  
b) Discuss frequency meter and its applications. 7
5. Explain working of sampling CRO, with the help of a suitable diagram. 14

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6. a) Explain working of spectrum analyzer. 7  
b) Discuss working of wave analyzer. 7
7. Explain all the components of CRO and how the frequency phase are measured with the CRO. 14
8. Write short notes on any two 14  
a) Function generator  
b) Displays (LCD and LED)  
c) Vibration Galvanometer

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