

Roll No .....

**EX - 604**  
**B.E. VI Semester**  
 Examination, June 2015  
**Electronic Instrumentation**  
*Time : Three Hours*

Maximum Marks : 70

- Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.  
 ii) All parts of each questions are to be attempted at one place.  
 iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.  
 iv) Except numericals, Derivation, Design and Drawing etc.

**Unit - I**

1. a) Define the deflection sensitivity of CRT.  
 b) Write a note on electronic multimeter.  
 c) What is a differential amplifier?  
 d) Discuss the digital type storage oscilloscope with the help of block diagram.

OR

Explain the working of vector impedance meter with the help of block diagram.

**Unit - II**

2. a) Differentiate between active and passive transducer.  
 b) Explain the basic principle of strain gauge.  
 c) How a thermistor measures the temperature? Explain.

- d) Explain the measurement of relative permittivity with Schering bridge.

OR

Explain the principle of piezoelectric transducer.

**Unit - III**

3. a) What is a signal generator?  
 b) What is the harmonic distortion in a waveform?  
 c) Explain the basic wave analyzer with its circuit diagram.  
 d) Describe the working of sweep frequency generator with block diagram.

OR

Explain the working of function generator with block diagram.

**Unit - IV**

4. a) What is a LED?  
 b) What is the importance of sensitivity of a digital meter?  
 c) Explain the frequency mode of an electronic counter.  
 d) Explain the successive approximation DVM with block diagram.

OR

Explain the integrating type DVM with block diagram.

**Unit - V**

5. a) What is a data acquisition system?  
 b) What is a network analyzer.  
 c) Differentiate between scalar and vector analyzer.  
 d) Describe optical time domain reflectometer with the help of block diagram.

OR

Explain the method of measurement of scattering parameters.