

R09

Code No: 55023

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD

B. Tech III Year I Semester Examinations, May/June - 2015

ELECTRONIC MEASUREMENTS AND INSTRUMENTATION

(Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 75

Answer any five questions.
All questions carry equal marks

- 1.a) Explain the following:
i) Sensitivity
ii) Resolution
iii) Static sensitivity
iv) Absolute error.
- b) Explain the dynamic characteristics of a measuring system. [8+7]
- 2.a) Explain the operation of a square wave generator.
b) Draw the block diagram of a multimeter and explain its function detail. [7+8]
- 3.a) Explain about spectrum analyzer with a neat block diagram.
b) Write in detail about signal generator with a neat sketch. [8+7]
- 4.a) Discuss the specifications and applications of LVDT.
b) Explain the operation of RTD with a neat sketch. [8+7]
5. Explain the measurement of the following physical quantities with transducers.
a) Velocity
b) High pressure. [7+8]
- 6.a) Draw the simplified block diagram of the sampling oscilloscope and explain.
Draw the wave forms.
b) Explain different modes of operation of the above oscilloscope. [9+6]
- 7.a) Write about the operation of Twin T Bridge with a neat circuit diagram.
b) Explain the measurement of resistance using Wheatstone bridge. [8+7]
8. Draw the block diagram of CRT. Explain different types of deflections in a CRT.
Derive the relevant expressions. [15]

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