

R16/R15

Code No: 137CF/127CW

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, March - 2021

ELECTRONIC MEASUREMENTS AND INSTRUMENTATION

(R16 – Electronics and Communication Engineering;

R15 - Electronics and Telematics Engineering)

Time: 3 Hours

Max. Marks: 75

**Answer any Five Questions
All Questions Carry Equal Marks**

- 1.a) Discuss the difference between accuracy and precision.
b) With a neat sketch explain the operation of series type ohmmeter. Also explain how it is calibrated. [6+9]
- 2.a) Define Volt meter sensitivity. What is the loading effect of a DC voltmeter? Explain with an example.
b) In detail describe about the power analyzers? Also state the application of it. [7+8]
- 3.a) Explain the operation of the function wave generator.
b) Draw the block schematic of AF wave analyzer and explain. [8+7]
- 4.a) Explain the function of each block in the dual beam oscilloscope.
b) Discuss the various features of the CRT. [8+7]
- 5.a) Compare the analog and digital storage oscilloscope.
b) Give the constructional details of the different types of bonded strain gauges. [8+7]
6. Explain the dynamic characteristics of measuring system. [15]
- 7.a) Describe the construction and principle of magnetic flow meters.
b) Why the Kelvin's bridge is preferred? Derive the bridge balancing equation for the Kelvin's double bridge. [7+8]
8. Explain working principle operation of CRO and give this application, advantages and disadvantages. [15]

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