

Quiz-1
Measurement and Instrumentation EC-501
III rd year EC1
Date: 27th August' 2012

Name:

Roll Number:

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1. Which is NOT a type of Error in Measurement Systems and Measuring Instruments?
 - a). Gross Error b). Systematic Error
 - c). Arithmetic Error d). Random Error

2. According to Normal Law, what is the range of probable error, $r=?$
 - a). $\pm 0.6932\sigma$ b). $\pm 0.7432\sigma$
 - c). $\pm 0.6745\sigma$ d). $\pm 0.8352\sigma$

3. The smallest change in measured value to which the instrument will respond, is known as—
 - a). Precision b). Sensitivity
 - c). Resolution d). Error

4. The ratio of output signal or response of the instrument to a change of input or measured value, is known as—
 - a). Precision b). Sensitivity
 - c). Resolution d). Error

5. The definition of Kilogram is given as—
 - a). The mass of a cubic decimeter of water at its temperature of maximum density at 4°C.
 - b). The mass of a cubic nanometer of water at its temperature of maximum density at 9°C.
 - c). The mass of a cubic centimeter of water at its temperature of maximum density at 14°C.
 - d). The mass of a cubic decimeter of water at its temperature of maximum density at 1°C.

6. The device that converts energy from one form to another, is known as—
- a). Transmitter b). Transmission Line
 - c). Transformer d). Transducer
7. A 0—150-V voltmeter has a guaranteed accuracy of 1 percent full scale reading. The voltage measured by this instrument is 83 V. Calculate the limiting error in percent.
- a). 1.81% b). 1.82%
 - c). 1.80% d). 1.83%
8. The transducers in which the property of crystals is used which says that if mechanical pressure is applied then there appears a small potential difference are known as—
- a). Piezo Electric transducers b). Piezo Resistive Transducers
 - c). Pyro Electric Transducers d). Thermistors
9. With reference to transducers, give the full form of LVDT—
- a). Length Volume Digital Transducer
 - b). Linear Varactor Diode Transformer
 - c). Linear Variable Differential Transducer
 - d). Linear Variable Differential Transformer
10. A moving coil voltmeter has a uniform scale with 100 divisions, the full scale reading is 200V, and 1/10 (one-tenth) of the scale can be estimated with fair degree of certainty. Determine the resolution of the instrument in volts.
- a). 2V b). 0.2V
 - c). 0.02V d). 20V

