Midterm

Course Title: Electrical Measurement and Instrument

Course Code: EEE 421

Full Marks: 10 Times: 25 Minutes

Section A 5×1=5

1. The desirable static characteristics of a measuring system are

A. Accuracy and resproducibility
B. Accuracy, sensitivity and reproducibility
C. Drift and dead zone
D. Static error

2. The ratio of maximum displacement deviation to full scale deviation of the instrument is called

A. Static sensitivity
B. Dynamic deviation
C. Linearity
D. Precision or accuracy

3. In measurement systems, which of the following are undesirable static characteristics :

A. Sensitivity and accuracy
B. Drift, static error, and dead zone
C. Reproducibility and non-linearity
D. Drift, static error, dead zone, and non-linearity

4. A d.c. circuit can be represented by an internal voltage source of 50 V with an output resistance of 100 kΩ. In order to achieve 99 percent accuracy for voltage measurement across its terminals, the voltage measuring device should have :

A. a resistance of at least 10 MΩ
B. the resistance of 100 kΩ
C. a resistance of at least 10 Ω
D. none of the above

5. In a.c. circuits, the connection of measuring instruments causes loading errors which may affect

A. only the magnitude of quantity being measured
B. only the phase of the quantity being measured

C. both the magnitude and phase of the quantity being measured
D. magnitude, phase, and also the waveform of the quantity being measured

Section B 5

1. Define static error. Write the main static characteristics? 3
2. What is a histogram? Define the arithmetic mean. 2