

# Assignment-1

## Unit-1

### Electronic Instrumentation

1. Draw & explain the basic Architecture for an Electronic Instrumentation measurement System with neat sketch diagram.
2. Define the followings:
  - a) Instrumentation
  - b) Measurement
  - c) Accuracy
  - d) Precision
  - e) Absolute & Relative Error
3. Which are the physical system of measurements. Explain Fundamental & derived properties with examples.
4. A voltage has a true value of 1.5 V. An analog indicating instrument with a scale range of 0-2.5 V shows a voltage of 1.46 V. What are the values of absolute error and % error?
5. Explain the different types of errors in detail.
6. What are the transducers? Compare mechanical & electrical transducers with their pros & cons.
7. State and explain the basic requirements of transducers.
8. Give the classification of transducers and explain about active & passive transducer in detail.
9. What is the difference between primary & secondary transducer. Explain with the example.
10. Explain the potentiometer as resistive transducer device.
11. Explain about the various signal conditioning circuits used in Electronic Instrumentation systems.
12. Draw & explain the the block diagram of Data Acquisition System.

**Last date of submission: 31/12/2020**