

## SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Write down the name of any four digital display units. Explain the segmental display and fluorescent display.
- Q.24 Define the static characteristics of instruments. Write a short note on any two static characteristics of instruments.
- Q.25 Write a short note on each of the following
- Linearity
  - Hysteresis
  - Natural frequency
  - LED

No. of Printed Pages : 4  
Roll No. ....

221516

## 1st Sem / Instrumentation & Control Engg.

### Subject : Fundamentals of Instrumentation Engineering

Time : 3 Hrs.

M.M. : 60

## SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 The output device which is used for the presentation of information in visual or another form is
- Sensor
  - Transducer
  - Measurement system
  - Display device
- Q.2 The measure of reproducibility of an instrument is known as
- Accuracy
  - Error
  - Precision
  - Damping coefficient
- Q.3 LCD stands for
- Light crystal diode
  - Liquid crystal diode
  - Liquid crystal display
  - Light crystal display

- Q.4 The error due the misadustments is known as  
 a) Observational error b) Gross error  
 c) Instrumental error d) Environmental error
- Q.5 The change in the output due to the minimum change in the input of the measurement is known as  
 a) Resolution b) Hysteresis  
 c) Precision d) Sensitivity
- Q.6 The device which converts electrical energy into another form of energy is known as  
 a) Transducer b) Inverse Transducer  
 c) LCD d) Sensor

### SECTION-B

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Expand LED
- Q.8 Define the term resolution.
- Q.9 If the true value of a measurement system is 80 and the measured value is 79 than the value of limiting error is\_\_\_\_\_.
- Q.10 Define magnetic chart recorder.

(2)

221516

- Q.11 Define observational error.
- Q.12 Write down the selection creteria of instruments.

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Write down the difference between random error and systematic error.
- Q.14 Write down any four differences between XY recorder and strip chart recorder.
- Q.15 Write and explain the functions of dot matrices.
- Q.16 Classify and explain the types of instruments.
- Q.17 Define the term linearity. Write any one example of the linear instrument.
- Q.18 Write down the types of recorders in instrumentation system. Explain any one of them.
- Q.19 Write down any two differences between sensitivity and resolution.
- Q.20 Explain environmental error and limiting error.
- Q.21 Write a short note on transducer.
- Q.22 Write a short note on functions of instruments.

(3)

221516