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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 LCD stands for

- a) Liquid Crystal display
- b) Level crystal display
- c) Liquid crystalline display
- d) None

Q.2 Which of the following undesirable static characteristics?

- a) Sensitivity b) Accuracy
- c) Drift d) None

Q.3 Which of the following is passive transducer?

- a) Piezo-electric b) LVDT
- c) Thermocouple d) None

- Q.4 A null type of instrument is compared to deflection type of instrument
- a) A high accuracy b) A lower sensitivity
c) A faster response d) None
- Q.5 Random error in the instrument occurs due to
- a) Human b) Environmental
c) Unknown cause d) Both (a) & (b)
- Q.6 Which of the following is pressure sensor?
- a) LVDT b) Bellows
c) Thermocouple d) None

SECTION-B

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

- Q.7 Write two name of sensor.
- Q.8 What is transducer?
- Q.9 What is error and relative error?
- Q.10 What is calibration?
- Q.11 Write four static characteristics name.
- Q.12 What is sensor?

SECTION-C

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

- Q.13 Explain the difference between drift and dead time.
- Q.14 What is LCD?
- Q.15 What is normal distribution of error?
- Q.16 Explain the characteristics of LED.
- Q.17 What is the Gross error?
- Q.18 What is the difference between sensor and transducer?
- Q.19 Explain 7 segment display.
- Q.20 What is deflecting torque?
- Q.21 Explain the difference between analog and digital.
- Q.22 Explain Strip chart recorder.

SECTION-D

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

- Q.23 Explain the dynamic characteristics of instrument.
- Q.24 Explain desirable and undesirable static characteristics of instrument.
- Q.25 Explain the different types of source of error in measurement system.