

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Draw & explain the basic building blocks of an instrumentation system.
- Q.4 What do you mean by performance characteristics of instruments? Explain different static characteristic.
- Q.5 What do you mean by recorder? Explain strip chart recorder in detail.
- Q.6 What is data logger? Explain in detail.
- Q.7 Write short note on any two :
- i) Calibrations of instrument
 - ii) Scanner
 - iii) Bar graph L.C.D

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3rd Sem. / I&C/E & I

Subject : Principles of Inst.

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1 Define the following terms.
- a) Measurement
 - b) Pressure
 - c) Temperature.
 - d) Accuracy
 - e) Linearity
 - f) Sensitivity
 - g) Damping co-efficient

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- h) Drift
- i) Rise time
- j) Grounding
- k) L.E.D
- l) Unit of pressure are _____.
- m) Calibration.
- n) Transducer
- o) Dead time
- p) Serviceability
- q) Shielding
- r) Scanning.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

Q.2 i) Discuss the significance of measurement.

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- ii) Discuss the concept of reliability.
- iii) What do you mean by order of instruments
- iv) Discuss the opening mechanism of indicating instrument.
- v) Give merits of circular chart records.
- vi) Discuss the use of field buses in brief.
- vii) Draw & discuss seven segment display.
- viii) Discuss the effect of environment on the performance of the instrument.
- ix) Discuss calibration tools.
- x) Explain concept of availability.
- xi) Discuss various sources of error.
- xii) Explain step signal.
- xiii) What do you mean by error? Classify them.
- xiv) Explain the principle of X-Y recorder
- xv) Discuss static response of the system.

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