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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (ECE) (Sem.-3)

ELECTRONICS MEASUREMENTS AND INSTRUMENTATION

Subject Code : EC-203

Paper ID : [A0302]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

Q1. Write briefly :

- a. How are electronic voltmeters classified?
- b. How inductance can be measured using Maxwell bridge?
- c. Describe dual beam oscilloscope.
- d. Name the instruments which are used for signal analysis.
- e. CRO is a voltage sensitive device. Justify.
- f. What is LVDT?
- g. What are the uses of instrument transformer?
- h. What do you mean by distortion factor?
- i. Name different type of photo-electric transducers.
- j. List the advantages and disadvantages of land line telemetry system.

SECTION-B

- Q2. How CRO is used to find voltage, current and frequency of a signal?
- Q3. Explain briefly Vacuum Tube Voltmeters (VTVM).
- Q4. Discuss in detail spectrum analyser.
- Q5. Describe the different modes of operation of piezo-electric transducers.
- Q6. Explain the functioning of strip chart recorder.

SECTION-C

- Q7. Write a short note on :
- LED seven segment display.
 - Strain Gauges
- Q8. Explain the working principle of thermocouples. List various types of thermocouples.
- Q9. What is meant by 'Ratio Error' and 'Phase angle Error' in Current transformer?