

Total No. of Questions : 09

Total No. of Pages : 02

B.Tech.(ETE / ECE / Electronics & Computer Engg.) (2011 Onwards)
B Tech.(Electronics Engineering) (2012 Onwards)
(Sem.-4)

ELECTRONICS MEASUREMENTS AND INSTRUMENTATION
Subject Code : BTEC-100

Subject Code : BTEC-404

Paper ID : [A1192]

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. Differentiate the terms accuracy and precision.
- b. State the three types of systematic errors, giving examples of each.
- c. What is the use of chopper in micro voltmeter?
- d. State the principle of operation of galvanometer.
- e. What is the difference between the operation of fixed and variable AF oscillators?
- f. Define the term distortion factor.
- g. What is the difference between active and passive transducers?
- h. Define a strain gauge.
- i. Why is it necessary to use pre-amplification and filtering before data processing?
- j. What is data transmission?

SECTION-B

- Q2) What are the different types of telemetry systems? Enlist the various applications of telemetry.
- Q3) What are the important factors that decide the configuration and subsystem of a Data Acquisition System?
- Q4) Describe the essential difference between a variable reluctance type of transducer and an LVDT.
- Q5) Compare the measuring accuracy of a Wheatstone bridge with the accuracy of an ordinary ohmmeter.
- Q6) Explain the functions of various controls on the front panel of a CRO.

SECTION-C

- Q7) Explain with the help of neat circuit diagram, the working of a dual slope DVM. What are the advantages of dual slope over Ramp type DVMs?
- Q8) What is the difference between a wave analyzer and a harmonic distortion analyzer? What are spectrum analyzers commonly used for? Explain its applications.
- Q9) Explain the minimum of five specifications that should be considered while selecting a recording instrument. What is the difference between an indicator and recorder?