

ELEX 3 SEM ELECTRONIC INSTRUMENTS AND MEASUREMENTS JUN 2016

Q.P. Code: 30742

(3 Hours)

Total Marks: 80

N.B. : (1) Question No.1 is Compulsory.

(2) Attempt any Three questions from remaining Five questions.

1. Solve All (20)
 - a) Define:- Accuracy, Precision, Linearity, Sensitivity, Resolution
 - b) Write specifications of analog multimeter.
 - c) Discuss the role of delay line in CRO.
 - d) Explain selection criteria of transducers.
2. a. Explain in detail linear variable differential transformer. (10)
b. Draw and explain multichannel data acquisition system. (10)
3. a. Discuss the working principle of RTD, Thermistor and Thermocouple. Also write their ranges and applications. (10)
b. Draw and explain the Maxwell bridge. (10)
4. a. Draw and explain block diagram of CRO. (10)
b. Write short note on "PC based instrumentation system". (10)
5. a. Explain the liquid level measurement using capacitive type method. (10)
b. What is error? Write the classification of errors. Also discuss the methods to eliminate/reduce the errors during measurement. (10)
6. Write short notes on: (20)
 - a. Wheatstone bridge
 - b. Applications of DSO
 - c. Resistance strain gauge
 - d. Turbine flow meter

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