PVP 12

Code: EC8T2

IV B.Tech-II Semester–Regular/Supplementary Examinations–April 2017

ELECTRONIC MEASUREMENTS & INSTRUMENTATION
(ELECTRONICS & COMMUNICATION ENGINEERING)

Duration: 3 hours Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks

1. a) How the performance characteristics of an instrument are classified? Discuss the static characteristics. 7 M

   b) What is meant by error and mention different types of errors? 7 M

2. a) Discuss the operation of AF sine and square wave generator in detail. 7 M

   b) Explain how a function generator is used for the generation of various signals. 7 M

3. a) Explain the principle and operation of basic spectrum analyzer with a neat block diagram. 7 M

   b) Explain different applications of spectrum analyzer and mention its limitations. 7 M

4. a) Write short notes on delay line construction technique. 7 M

b) What are lissajous patterns? How can they be created? Explain. 7 M

5. a) Compare storage oscilloscope with ordinary oscilloscope. 7 M

b) Explain how to measure the period of an input signal with a neat sketch. 7 M

6. a) Explain why Maxwells inductance-capacitance bridge is useful in measurement of inductance of coils having storage factor between 1 and 10. 7 M

b) Explain how the unknown resistance is measured by means of Wheatstone bridge with a neat sketch. 7 M

7. a) What is Transducer ? Give the classification of Transducers. 7 M

b) Define active and passive transducers and give an example of each. 7 M

8. a) Draw the Block diagram of Data Acquisition System and explain the function of each Block. 7 M

b) Classify absorption hygrometers and explain them in detail. 7 M