

B.Tech. 5th Semester (EEE) F. Scheme Examination,

December-2017

**ELECTRONIC MEASUREMENT AND
INSTRUMENTATION**

Paper-EE-339-F

Time allowed : 3 hours] [Maximum marks : 100

Note : Attempt five questions, Q. No. 1 is compulsory and attempt one question from each of four sections.

1. (a) Describe how phase angle measurement can be done with use of CRO. $5 \times 4 = 20$
(b) What is sample and hold circuit ?
(c) What are bonded and unbonded types of strain-gauges ?
(d) Discuss seven segment display.

Section-I

2. Describe principle of working and circuit diagram of digital oscilloscope. 20
3. With the help of suitable block diagram, discuss in detail about Function Generator. 20

Section-II

4. (a) Discuss the instruments used for measurement of voltage. 10
(b) Explain Q meter in detail. 10
5. With the help of suitable diagram, discuss in detail about Universal Counter. 20

Section-III

6. (a) Describe the principle and working of Nixie tubes. 10
(b) Describe the construction and working of LCD. 10
Explain its advantages and disadvantages. 10
7. Explain construction and working of L.V.D.T. with suitable application. 20

Section-IV

8. Draw block diagram of ac signal conditioning system and explain the function of each block. 20
9. Explain the following : 20
(i) Temperature Measurement
(ii) Decade Counting Assembly.