Roll No. .....

24236

B. Tech. 5th Sem. (ECE)

Examination – December, 2014

ELECTRONIC MEASUREMENT AND INSTRUMENTATION

Paper : EE-303-F

Time : Three Hours] *[Maximum Marks : 100*

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Question No. **1** is ***compulsory***. Attempt any ***one*** question from each Section.

1. (a) Describe applications of a C.R.O.

(b) Explain D. C. signal conditioning system.

(c) Differentiate primary transducer and secondary transducer.

(d) Explain advantages of L.V.D.T.

(e) Comment on RLC Photocell. $5 \times 4 = 20$

SECTION – A

2. Draw the block diagram of a general purpose CRO and explain the functions of the following controls : 20

(i) Intensity,

(ii) Focus,

(iii) Horizontal and vertical positioning,

(iv) Synchronization.

3. The deflection sensitivity of an oscilloscope is 35 V/c.m. if the distance from the deflection plates to the CRT screen is 16 cm, the length of the deflection plates is 2.5 cm and the distance between the deflection plates is 1.2 cm. What is the acceleration anode voltage ? 20

SECTION – B

4. (a) Explain chopper amplifier type voltmeter. 10

(b) Explain Harmonic analyser. 10

5. Describe the different electrical methods for measurement of liquid level. Compare their advantages and disadvantages. 20

SECTION – C

6. (a) Explain universal counter. 10

(b) Explain Block diagram of digital frequency meter. 10

7. Explain different basic schemes of measurement of displacement in detail. 20

SECTION – D

8. (a) Explain Data acquisition system. 10

(b) Explain Block diagram of Pulse generator. 10

9. Write short notes on : 10 + 10 = 20

(a) Wave analyser.

(b) Types of transducers.