

Roll No.

OLE-24226

B. Tech. 5th Semester (EEE)

Examination – April, 2021

**ELECTRONIC MEASUREMENT AND
INSTRUMENTATION**

Paper : EE-339-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 : Attempt five questions in all. Question 1 is **compulsory**. Attempt **four** more question, Sections A, B, C & D by selecting at least **one** question from each section.

1. (i) Explain the principle of secondary emission in analog storage oscilloscope. $4 \times 5 = 20$
- (ii) Draw and explain block diagram of an AC differential voltmeter.
- (iii) Explain liquid crystal diode(LCD).
- (iv) Draw the block diagram of DC signal conditioning system.

SECTION – A

2. Draw the internal structure of cathod ray tube (CRT) and explain about its main parts. 20
3. Draw and explain block diagram of a function generator. 20

SECTION – B

4. Classify vaccum tube voltmeters and discuss about advantages of electronic voltmeters. 20
5. (a) Explain decade counting assembly (DCA). 10
(b) Explain Ferrodynamic type frequency meter.. 10

SECTION – C

6. (a) Explain Nixie tubes. 10
(b) Explain the factors influencing the choice of transducers. 10
7. Explain the construction and output measurement of a thermocouple. 20

SECTION – D

8. Draw and explain the block diagram of AC signal conditioning system. 20
9. Discuss data acquisition and conversion system briefly. 20