C14-EC-303

# 4239

## BOARD DIPLOMA EXAMINATION, (C-14)

## JUNE-2019

## DECE - THIRD SEMESTER EXAMINATION

ELECTRONIC MEASURING INSTRUMENTS

**Time : 3 Hours]** **[Max. Marks: 80**

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**PART - A**

**3x10=30M**

***Instructions:*** 1) Answer **all** questions and each question carries **three** marks.

2) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1) List the applications of bridges.

2) What is the principle of differential voltmeter?

3) List any three specifications of digital frequency meters.

4) List the advantages of digital instruments over analogue instruments.

5) List front panel controlsof CRO.

6) Define deflection sensivity of CRO.

7) List the applications of RF signal generators.

8) List the front panel controls of AF oscillator.

9) Define distoration factor.

10) Define stray inductance and stray capacitance of a coil.

## PART - B

**5x10=50M**

***Instructions:*** 1) Answer any **five** questions and each question carries **ten** marks.

2) Answers should be comprehensive.The criteria for valuation is the content but not the length of the answer.

11) Explain the construction and principle of operation of PMMC instrument.

12) Explain the capacitance measurement using Schering Bridge.

13) Explain the working of successive approximation type digital voltmeter with block diagram.

14) (a) Explain the working of a digital frequency meter with block diagram. 5M

(b) Draw the block diagram of a CRO. 5M

15) Explain the operation of triggered sweep with necessary circuit diagram and mention its advantages.

16) (a) Explain the procedure for measurement of i) phase angle ii)depthof modulation using CRO. 5M

(b) Explain the working of AF Oscillator (sine and square) with block diagram. 5M

17) Explain the working of AF power meter with neat sketch.

18) Explain the working of Logic analyser with block diagram.

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