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4239

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL-2019

DECE - THIRD SEMESTER EXAMINATION

ELECTRONIC MEASURING INSTRUMENTS

Time: 3 Hours]

[Max.Marks: 80

PART-A

3x10=30M

Instructions: 1) Answer **all** questions. Each question carries **three** marks.
2) Answer should be brief and straight to the point and shall not exceed **five** simple sentences.

1. What is loading effect of a meter?
2. Mention the types of A.C. bridges.
3. Define resolution and accuracy of a meter.
4. List any three specifications of Digital Voltmeter.
5. State the advantages of triggered sweep.
6. List different types of CRO probes.
7. List the applications of AF oscillator.
8. Mention the specifications of RF signal generator.
9. State the need for plotters and recorders.
10. Define distortion factor.

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PART-B

5x10=50M

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

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

- 11.** Draw the circuit and explain the working of Rectifier type voltmeter.
- 12.** Explain the inductance measurement using Maxwell's bridge.
- 13.** Explain the working of successive approximation type digital voltmeter with block diagram.
- 14.** (a) What are the advantages of digital instruments over analog instruments? 5M
(b) Explain the need for shielding in RF generators. 5M
- 15.** Draw the block diagram of CRO and explain the function of each block.
- 16.** (a) Explain the function of any six front panel controls of CRO. 6M
(b) Define a pulse and draw the waveform of a pulse and mention the pulse parameters. 4M
- 17.** Draw the explain the working of AF oscillator with block diagram.
- 18.** Explain the working of digital IC tester with block diagram.

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