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C09-EC-405

3471

BOARD DIPLOMA EXAMINATION, (C-09)

MARCH/APRIL—2021

DECE - FOURTH SEMESTER EXAMINATION

ELECTRONIC MEASURING INSTRUMENTS

Time : 3 hours]

[Total Marks : 80

PART—A

4×5=20

- Instructions :**
- (1) Answer *any five* questions.
 - (2) Each question carries **four** marks.
 - (3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. List the types of bridge circuits in measuring instruments.
2. State the principle of extending the range of DC voltmeter.
3. Draw the Maxwell's bridge circuit.
4. List the advantages of digital instruments over analog instruments.
5. List the specifications of digital frequency meter.
6. Draw the block diagram of IC tester.
7. List various controls and terminals of CRO.
8. State the necessity of plotter.
9. List the front panel controls of AF oscillator.
10. List the applications of power meter.

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PART—B

15×4=60

Instructions : (1) Answer *any four* questions.
(2) Each question carries **fifteen** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. Explain the resistance measurement using Wheatstone bridge.
12. Explain the principle and operation of PMMC instrument.
13. Explain the working of successive approximation type digital voltmeter.
14. Explain the working of digital IC tester with block diagram.
15. Describe the operation of general purpose CRO with block diagram.
16. Explain the procedure for measurement of AC voltage, time interval and depth of modulation using CRO.
17. Explain the working of AF oscillator with block diagram.
18. Explain the importance of shielding in RF generators.

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