



C09-EE-305

3243

BOARD DIPLOMA EXAMINATION, (C-09)

OCT / NOV-2015

DEEE - THIRD SEMESTER EXAMINATION

ELECTRICAL & ELECTRONIC MEASURING INSTRUMENTS

Time : 3 hours]

[Total Marks : 80

PART - A

10 × 3 = 30

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

1. What are the different types of damping torques in indicating instruments.
2. Compare indicating and recording instruments in any two aspects.
3. Write the formula for power factor in two-wattmeter method.
4. List the common errors in dynamometer Type instrument.
5. State any three disadvantages of moving coil instrument.
6. Draw a neat sketch of megger.
7. Write any three applications of thermisto.
8. List any three specifications of Ramp-type digital voltmeter.
9. State the advantages of digital energy meters.
10. Draw the circuit diagram of full ware rectifier voltmeter.

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PART - B

10 × 5 = 50

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

11. Explain the construction and working of moving iron repulsion-type instruments with a neat sketch.
12. Explain the use of multipliers for extension of range of voltmeter with sketch.
13. Explain the construction and working of Weston frequency meter with a neat diagram.
14. Explain the working of 3-phase 3-element-type energy meter with a neat sketch.
15. Explain the working of a potentiometer with a neat sketch.
16. What are meant by active and passive transducers? List at least two active and passive transducers.
17. Explain the working of digital multimeter with neat sketch.
18. (a) State the differences between gravity control and spring control methods. 5
(b) State the principle of operation rectifier-type voltmeter. 5

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