



C14-EE-304

4246

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL—2016

DEEE—THIRD SEMESTER EXAMINATION

ELECTRICAL AND ELECTRONIC MEASURING
INSTRUMENTS

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answer should be brief and straight to the point and shall not exceed **five** simple sentences.

1. What is the difference between absolute instrument and secondary instrument?
2. What is the purpose of controlling torque in measuring instruments?
3. State any three advantages of moving-coil instrument.
4. What is the use of shunt and multipliers?
5. Write any three methods of measuring high resistance.
6. Write any three applications of potentiometers.
7. Define (a) transducer and (b) inverse transducer.

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1

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8. Write any three ^{*} applications of sensors.
9. Write any three advantages and disadvantages of digital instruments.
10. List the types of digital voltmeters.

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. (a) Write how damping torque is produced using air friction method. 5
(b) Draw the block diagram of digital frequency meter. 5
12. Explain the construction and working of repulsion type moving iron instrument with a neat sketch.
13. Explain the construction and working of dynamometer type wattmeter with a neat sketch.
14. Explain the construction and working of single-phase energy meter with a neat sketch.
15. Explain the construction and working of Weston synchroscope with a neat sketch.
16. Explain the method of measurement of earth resistance using Earth Megger.
17. Describe the construction and working of Linear Variable Differential Transformer (LVDT) with neat sketch.
18. Explain the working of digital multimeter with block diagram.

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