



C14-AEI-305

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BOARD DIPLOMA EXAMINATION, (C-14)
MARCH/APRIL—2016
DAEI—THIRD SEMESTER EXAMINATION
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) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Classify the analog measuring instruments.
2. State the balancing conditions of bridges.
3. List the specifications of PMMC instruments.
4. List the advantages of digital instruments over analog instruments.
5. List the specifications of digital frequency meter.
6. State the conditions for flicker-free waveform in CRO.
7. List the important front controls of a dual trace CRO.
8. List the specifications of CRO.
9. Classify signal generators.
10. State the applications of plotter.

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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 working of PMMC meter with a neat diagram. 2+8

12. (a) Explain the Maxwell bridge and derive the balance equation. 1+2+2

(b) Draw and explain the working of differential voltmeter. 2+3

13. Explain the working of successive approximation type digital voltmeters with block diagram. 2+8

14. (a) Explain the working of digital frequency meter with a neat diagram. 2+3

(b) Explain the working of digital multimeter with block diagram. 2+3

15. Draw the block diagram of CRO and describe the function of each block. 2+8

16. (a) Explain triggered sweep with necessary circuit and mention its advantages. 3+2

(b) Explain the basic principle of storage oscilloscope with block diagram. 2+3

17. Explain the working of function generator with block diagram. 2+8

18. Explain the working of logic analyser with block diagram. 2+8
