



C14-AEI-305

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BOARD DIPLOMA EXAMINATION, (C-14)
MARCH/APRIL—2018
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. State the principle of extending the range of DC voltmeter.
2. What is Megger?
3. State the d'Arsonval principle.
4. List any three specifications of digital voltmeter.
5. List any three advantages of digital instruments over analog instruments.
6. State the necessity of timebase signal in a CRO.
7. Write the expression for deflection sensitivity of a CRT.

- * 8. What are the major parts of CRT?
- 9. State the importance of shielding in RF generator.
- 10. Draw the block diagram of logic analyzer.

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 capacitance measurement using Schering's bridge.
- 12. Explain the working of differential voltmeter with necessary circuit diagram.
- 13. Explain the working of digital frequency meter with a block diagram.
- 14. Draw the block diagram of successive approximation type digital voltmeter and explain its working.
- 15. Draw the block diagram of CRO and explain the function of each block.
- 16. Explain triggered sweep with necessary circuit diagram.
- * 17. Explain the working of AF sine and square wave generator with the help of block diagram.
- 18. Explain the working of digital IC tester with block diagram.
