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C14–AEI–305

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BOARD DIPLOMA EXAMINATION, (C–14)

MARCH/APRIL—2017

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. List three different torques needed for driving analog instruments.

2. Draw the circuit of FET input voltmeter.

3. State the principle of extending the range of DC Ammeter.

4. Mention any three advantages of digital instruments over analog instruments.

5. List any three specifications of digital LCR meter.

6. Draw the block diagram of CRO.

7. List the conditions for flicker free waveform in CRO.

8. State the necessity of time base signal in a CRO.

9. List any three applications of RF signal generators.

10. State the necessity of plotters.

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 inductance measurement using Maxwell's bridge.

12. Explain the working of series type ohmmeter with the help of circuit diagram.

13. Explain the working of Ramp type digital voltmeter with a block diagram.

14. Explain the working of digital multimeter with a block diagram.

15. Sketch the CRT and describe the functions of different parts.

16. Explain the operation of storage oscilloscope with block diagram.

17. Explain the function generator with the help of block diagram.

18. Explain the working of *Q* meter with diagram.

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