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C09–AEI–**402**

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BOARD DIPLOMA EXAMINATION, (C–09)

OCT/NOV—2017

DAEIE—FOURTH 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) Answer should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Draw the diagram of shunt-type ohmmeter.

2. State the use of megger for insulation measurements.

3. Give the principle of extending the range of DC ammeter.

4. List the specifications of digital multimeter.

5. List the advantage of digital instruments over analog instruments.

6. Mention the specifications of CRO.

7. List the conditions for flicker free waveforms.

8. Draw and label the parts of CRT.

9. List the applications of function generator.

10. List the specifications 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 resistance measurement using Maxwell bridge and list the applications.

12. Explain the principle and working of rectifier-type voltmeter.

13. Explain the working of successive approximation-type digital voltmeter with block diagram.

14. Explain the digital frequency meter with block diagrams.

15. *(a)* Explain the procedure for measurement of frequency and time period using CRO. 7

(b) List the front panel controls of CRO. 3

16. Draw the block diagram of general purpose CRO and describe the function of each block.

17. Explain the working of RF signal generator and list the specifications.

18. Explain the working of *X-Y* recorder with legible diagram.

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