



C16-AEI-304

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BOARD DIPLOMA EXAMINATION, (C-16)

JANUARY/FEBRUARY—2022

DAEIE - 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 different torques needed for driving analog Instruments.
2. Define sensitivity of voltmeter.
3. Give the classification of bridge circuits.
4. List any three advantages of digital instruments over analog instruments.
5. List any three specifications of digital multimeter.
6. List the conditions for stationary and flicker free waveforms in a CRO.
7. List any three front panel controls of CRO and write their function.
8. State the necessity of time base generator in a CRO.
9. List any three applications of RF signal generator.
10. State the necessity of plotter and recorders.

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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 criterion for valuation is the content but not the length of the answer.

11. Explain the construction and principle of operation of PMMC instrument.
12. Explain the resistance measurement using Wheatstone bridge.
13. Explain the working of ramp type digital voltmeter with block diagram.
14. Explain the working of digital frequency meter with block diagram.
15. Sketch CRT and describe the function of each part.
16. Explain the dual trace oscilloscope with a block diagram.
17. Explain the working of function generator with block diagram.
18. Explain the working of Q meter with diagram.

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