



C14-AEI-305

4218

**BOARD DIPLOMA EXAMINATION, (C-14)
SEPTEMBER/OCTOBER - 2020
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 shunt-type ohmmeter.
2. List any three balancing conditions of bridges.
3. List any three torques needed for driving analog instruments.
4. List any three specifications of digital frequency meter.
5. List any three specification of digital voltmeters.
6. Write the procedure for measurement of frequency using CRO.
7. List any three conditions for stationary and flicker-free waveforms.

- * 8. Write the expression for deflection sensitivity.
- 9. List any three applications of function generator.
- 10. State the necessity of recorders.

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 bridge with diagram.
- 12. Explain the construction and principle of operation of PMMC instrument with diagram.
- 13. Explain the working of Ramp-type digital voltmeter with block diagram.
- 14. Explain the working of digital LCR meter with block diagram.
- 15. Explain the block diagram of general purpose CRO with diagram.
- 16. Explain the dual trace oscilloscope with a block diagram.
- * 17. Explain the working of AF oscillator with block diagram.
- 18. Explain the working of logic analyzer with block diagram.
