



C09-EC-405

**3471**

**BOARD DIPLOMA EXAMINATION, (C-09)**  
**OCT/NOV—2016**  
**DECE—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) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Explain the principle of extending the range of DC voltmeter.
2. Mention the applications of Wheatstone bridge.
3. Give the basic principle of d'Arsonval movement.
4. Write any three advantages of digital instruments over analog instruments.
5. State the uses of spectrum analyzer.
6. List any three specifications of LCR meter.
7. What are the major components of CRT?

- \* 8. List the conditions for flicker free waveforms.
- 9. List the front panel controls of AF oscillator.
- 10. List any three applications of RF signal generator.

**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 construction and working of shunt type ohmmeter.
- 12. Explain the capacitance measurement using Schering bridge.
- 13. Explain the working of successive approximation type DVM with block diagram.
- 14. Explain the working of digital IC tester with a block diagram.
- 15. Explain the functions of various controls on the front panel of a CRO.
- 16. Explain the method of conversion of single trace CRO into dual trace CRO with block diagram.
- \* 17. Explain the working of AF sine and square-wave oscillator with block diagram.
- 18. Explain the working of AF power meter with block diagram.

\*\*\*