3471

BOARD DIPLOMA EXAMINATION, (C–09)
MARCH/APRIL—2017
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. Write the principle of extending the range of DC ammeter.

2. Give the basic principle of d'Arsonval movement.

3. Write the principle of shunt-type ohmmeter.

4. List the advantages of digital instruments over analog instruments.

5. List the specifications of digital voltmeters.

6. List any three specifications of digital multimeter.

7. Define deflection sensitivity and write the expression for it.

8. List the conditions for stationary waveforms.

9. List any three applications of AF oscillators.

10. List any three applications of power meters.

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 series-type ohmmeter.

12. Explain the measurement of resistance using Wheatstone bridge.

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

14. Explain the working of digital LCR meter with block diagram.

15. Draw the block diagram of general purpose CRO and explain the function of each block.

16. Explain the working of XY recorder with block diagram.

17. Explain the working of a function generator with block diagram.

18. Explain the working of RF signal generator with block diagram.

★ ★ ★