



C09-EC-405

3471

BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2014
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) Answer should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Write the principle of operation of PMMC instrument.
2. List the applications of various bridges.
3. Explain the importance of shunts used in ammeters.
4. Draw the block diagram of digital IC tester.
5. Explain the basic principle of digital frequency meter.
6. Draw the block diagram of spectrum analyzer.
7. Mention the limitations of a CRO while displaying very high frequency waveforms.
8. List the applications of XY-plotters.

* 9. Draw the basic block diagram of RF signal generator.

10. List any three front panel controls of AFO.

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 emitter follower voltmeter using FET input stage with a neat sketch. Also give its advantages and disadvantages.

12. (a) Explain the working of Q-meter with neat circuit diagram. 5

(b) Explain the working of distortion factor meter with neat block diagram. 5

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

14. Draw the block diagram of DMM and explain its operation.

15. (a) List different types of probes used in oscilloscopes. 4

(b) Explain sensitivity and frequency response of a CRO. 6

16. Draw the diagram of CRT and explain the various parts of CRT.

17. Explain the working of AF sine and square wave oscillator with block diagram.

18. Explain the construction and working of bolometer type RF power meter.
