

**3471**  
**BOARD DIPLOMA EXAMINATION, (C-09)**  
**JUNE - 2019**  
**DIPLOMA IN ELECTRONICS & COMMUNICATION ENGINEERING**  
**ELECTRONIC MEASURING INSTRUMENTS**  
**FOURTH SEMESTER EXAMINATION**

**Time: 3 Hours****Total Marks: 80**

**PART - A (10 x 3 = 30 Marks)**

*Note 1: Answer all questions and each question carries 3 marks*

*2: Answers should be brief and straight to the point and shall not exceed 5 simple sentences*

1. What is meant by meter loading effect
2. Compare a Series type Ohmmeter & a Shunt type Ohmmeter.
3. Draw the neat sketch of Q-meter.
4. Mention the principle of RAMP type DVM.
5. State the use of Spectrum Analyzer.
6. Draw the block diagram of digital I.C Tester.
7. List the conditions for Stationary waveforms.
8. State the necessity of Recorders & Plotters.
9. List the applications of AF Oscillator.
10. List various types of Signal Generators with reference to frequency.

**PART - B (5 x 10 = 50 Marks)**

*Note 1: Answer any five questions and each question carries 10 marks*

*2: The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer*

11. Draw Schering bridge circuit and explain the capacitance measurement using Schering bridge
12. Define a multiplier and explain the principle of extending the range of voltmeter with an example
- \* 13. Explain the working of digital frequency meter with neat block diagram.
14. Explain the working of digital multimeter with neat block diagram.
15. Explain the method of conversion of single trace CRO into dual trace CRO with neat block diagram.
16. a) List different types of probes used in Oscilloscopes. 4Marks  
 b) Explain the procedure for measurement of voltage, frequency, depth of modulation using CRO. 6Marks
17. Explain the working of AF power meter with a neat sketch.
18. Draw the complete block diagram for an RF signal generator with Internal AM & FM sources and explain its operation.

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