



C16-EC-404

**6438**

**BOARD DIPLOMA EXAMINATION, (C-16)**

**AUGUST/SEPTEMBER—2021**

**DECE - FOURTH SEMESTER EXAMINATION**

**ELECTRONIC MEASUREMENTS AND CONSUMER GADGETS**

*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. List the characteristics of ideal voltmeter.
2. List three advantages of digital instruments over analog instruments.
3. List the conditions of flicker free waveforms in CRO.
4. Define deflection sensitivity of CRO.
5. List the front panel control of AF oscillator.
6. State the importance of shielding in RF generator.
7. List the specifications of microphones.
- \* 8. Define speech and noise.
9. List merits of DTH system.
10. List the features of smart TV.

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## PART—B

10×5=50

- Instructions :** (1) Answer *any five* questions.  
(2) Each question carries **ten** marks.  
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. Explain the construction and working principle of operation of PMMC instrument with neat figure.
12. Explain the method of conversion of single trace CRO into dual trace CRO with a block diagram.
13. Explain triggered sweep CRO with UJT and waveforms.
14. Explain the working of function generator with a block diagram.
15. Explain the construction and working of dynamic microphone with neat diagram and draw its polar characteristics.
16. Explain the construction and working of PMMC loud speaker with neat diagram and draw its polar characteristics.
17. (a) State the need for horizontal and vertical scanning.  
(b) State the need for satellite for TV broadcasting.
18. Draw the block diagram of a colour TV transmitter and state the functions of each block.

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