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**C16-EC-404****6438**

**BOARD DIPLOMA EXAMINATION, (C-16)**  
**OCTOBER/NOVEMBER—2023**  
**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 a ideal ammeter.
2. List the three advantages of digital instruments over analog instruments.
3. List the conditions for stationary waveforms.
4. Define deflection sensitivity of CRO.
5. List the specifications of RF signal generator.
- \* 6. List the front panel controls of AF oscillator.
7. Mention the use of woofers and tweeters.
8. Define the concept of Hi-Fi and stereo.
9. State the need for horizontal and vertical scanning.
10. State the need for SET TOP BOX.

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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 working of ramp type digital voltmeter with a block diagram
12. Explain the method of conversion of single trace CRO into DUAL trace CRO with block diagram.
13. Using diagram explain triggered sweep circuit with UJT.
14. Explain the working of digital IC tester with a block diagram.
15. Explain the basic principle of magnetic recording and reproduction.
16. Explain the principle, construction and working of crystal headphones and their uses.
17. Draw the block diagram of a colour TV transmitter and state the function of each block.
18. (a) State the need of satellite for TV broadcasting over wide area.  
(b) List the features of SMART TV.

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