

**6438****BOARD DIPLOMA EXAMINATION, (C-16)****MARCH / APRIL — 2021****DECE — FOURTH SEMESTER EXAMINATION****ELECTRONIC MEASUREMENTS AND CONSUMER GADGETS***Time : Three Hours]**[Maximum Marks : 80***PART-A**

3×10=30

**Instructions :** (i) Answer **all** questions.  
(ii) Each question carries **three** marks.  
(iii) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. List any three characteristics of ideal voltmeter.
2. List any three advantages of digital instruments over analogue instruments.
3. Define deflection sensitivity of CRO.
- \* 4. List the conditions for flicker free waveform in oscilloscope.
5. List the specifications of RF signal generator.
6. Draw the block diagram of an audio frequency oscillator.
7. Define the terms speech, music and noise.
8. List the specifications of loudspeaker.
9. State the need for horizontal scanning.
10. List the merits of DTH system.

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

11. Explain the construction and principle of operation of PMMC instrument.
12. Explain the method of conversion of single trace CRO into DUAL trace CRO with block diagram.
13. Explain the measurement of frequency and phase of a signal using Lissajous figures.
14. Explain the working of function generator with block diagram.
15. Explain the working of dynamic microphone along with its polar characteristics.
16. Explain the basic principle of magnetic recording and reproduction.
17. Draw and explain the block diagram of color TV receiver.
18. (a) Distinguish between progressive and interlaced scanning.  
(b) List the features of SMART TV.

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