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C20-EC-306

7244

BOARD DIPLOMA EXAMINATION, (C-20)

JUNE/JULY—2022

DECE - THIRD 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. Give the principle of rectifier type voltmeter.
2. Define accuracy and resolution of a meter.
3. Explain the functions of any three panel controls of CRO.
4. Define deflection sensitivity of CRO.
5. Give the importance of shielding in RF signal generators.
6. Draw the block diagram logic analyzer.
7. Define MP3 format.
8. Define the terms speech, music and noise.
9. Explain the principle of dynamic microphone.
10. What is set top box?

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PART—B

8×5=40

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

11. (a) Explain with suitable circuit diagram the working of FET input voltmeter.

(OR)

(b) Describe the principle and working of shunt type ohmmeter.

12. (a) Explain with suitable diagram the working of AFO.

(OR)

(b) Explain with suitable diagram the working of function generator.

13. (a) Explain the principle and working of carbon microphone along with their polar characteristics.

(OR)

(b) Explain the principle and working of horn loudspeaker.

14. (a) Explain the resistive and capacitive touch screen technology.

(OR)

(b) Explain with suitable diagram the digital TV reception.

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15. (a) Explain with suitable functional block diagram the working of digital LCD TV receiver.

(OR)

(b) Explain with functional block diagram the working principle of digital camera.

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PART—C

10×1=10

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

16. How is the single trace CRO converted into dual trace CRO?

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