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C14-EE-405

4465

BOARD DIPLOMA EXAMINATION, (C-14)

JUNE—2019

DEEE—FOURTH SEMESTER EXAMINATION

ELECTRONICS—II

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. Define feedback and feedback factor.
2. Draw the circuit diagram of single tuned amplifier.
3. State the need for radio frequency oscillator.
4. List the applications of various oscillators.
5. List the characteristics of an ideal OpAmp.
6. State the need of timer.
7. Define modulation index of AM.
8. Compare AM and FM.
9. List the various front panel controls of CRO.
10. Explain the term resolution, accuracy of D/A converter.

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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 the criterion for valuation is the content but not the length of the answer.

11. (a) Explain the performance characteristics of the emitter follower. 3+4
(b) Write the application of the emitter follower. 3
12. (a) What is the need of power amplifier? 4
(b) Draw the circuit diagram of voltage series and current series feedback amplifiers. 3+3
13. (a) Explain about Barkhausen criteria for sustained oscillations. 3
(b) Draw the circuit diagram of Colpitts oscillator and explain its operation. 3+4
14. Draw the circuit diagram of UJT relaxation oscillator and explain its operation. 4+6
15. Explain the working of operational amplifier as (a) summer and (b) differentiator. 5+5
16. Draw and explain the working of a stable multi vibrator by using 555 IC timer and draw output wave forms. 3+4+3
17. (a) Explain the power distribution in AM. 6
(b) Define modulation index and frequency deviation of FM. 4
18. Explain the working of ramp type digital voltmeter with the help of a block diagram. 4+6

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