



C14-EE-405

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**BOARD DIPLOMA EXAMINATION, (C-14)
OCT / NOV-2017
DEEE-FOURTH SEMESTER EXAMINATION
ELECTRONICS – II**

Time : 3 Hours]

[Total Marks : 80

PART - A

3 x 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. Distinguish between the voltage amplifier and the power amplifier.
2. List the applications of emitter follower.
3. Classify the oscillators based on mechanism involved and frequency range.
4. State the need for square-wave oscillator.
5. Define CMRR of a differential amplifier.
6. Draw the PIN diagram of 555 IC.
7. Compare between AM system and FM system.
8. Define the modulation index of AM wave.
9. List the applications of CRO.
10. Define the terms resolution and accuracy of a D/A converter.

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PART - B

10 x 5= 50

Instructions : (1) Answer any five questions.

(2) Each question carries ten marks.

(3) Answers should be comprehensive and the criteria for valuation is the content but not the length of the answer.

11. Draw the circuit diagram of a single-tuned amplifier and explain its working principle.
12. a) Draw the block diagrams of current series and current shunt feedback amplifiers.
b) Explain the effect of negative feedback on gain and bandwidth of an amplifier.
13. Draw the circuit diagram of Hartley oscillator and explain its working.
14. Draw the circuit diagram of UJT relaxation oscillator and explain its working.
15. Explain the working of an operational amplifier as the following
 - a) Inverting amplifier
 - b) Differentiator
16. Draw the circuit diagram of an astable multivibrator using IC 555 and explain its working.
17. a) Define modulation and demodulation.
b) Explain the effect of over modulation and under modulation in AM with necessary waveforms.
18. Draw the block diagram of CRO and explain the function of each block.

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