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C14-EE-405

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BOARD DIPLOMA EXAMINATION, (C–14)
MARCH/APRIL—2018
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. Distinguish between voltage amplifier and power amplifier.

2. List the differences between degeneration and regenerative feedbacks.

3. Classify oscillators based on waveform generated and circuit components.

4. List the applications of oscillators.

5. List the advantages of ICs over discrete circuits.

6. Draw the PIN out diagram of 741 IC.

7. Define Amplitude Modulation.

8. Mention the bandwidth requirements of FM wave.

9. State the necessity of time base voltage.

10. Draw the block diagram of a digital frequency meter.

PART—B

10×5=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. Draw the block diagrams of voltage series, voltage shunt, current series and current shunt feedback amplifiers.

13. Draw the circuit diagram of RC phase shift oscillator and explain its working.

14. Draw the circuit diagram of Colpitts' oscillator and explain its working.

15. Explain the working of operational amplifier as—

(a) Non-inverting amplifier (b) Summer

16. Draw and explain the internal block diagram of IC 555 timer.

17. *(a)* Define frequency modulation and draw the waveforms.

(b) Define frequency deviation.

18. Explain A/D conversion using successive approximate method.

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