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C16-EE–405

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BOARD DIPLOMA EXAMINATION, (C-16)

OCTOBER/NOVEMBER—2023

DEEE – FOURTH SEMESTER EXAMINATION

ELECTRONICS ENGINEERING—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. Classify different types of oscillators.

2. Draw the circuit diagram of Hartley oscillator.

3. List the advantages of ICs over discrete circuits.

4. List any three specifications of 741 IC.

5. State the need of modulation in communication system.

6. Define amplitude modulation (AM).

7. List any six applications of CRO.

8. State the need of A/D converters.

9. Classify transducers based on principle of working.

10. List any three applications of sensors.

PART—B

10×5=50

Instructions : (1) Answer *any* **five** questions.

(2) Each question carries **ten** marks.

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

11. Explain the working of RC phase shift oscillator with circuit diagram. 10

12. Draw the circuit diagram of UJT relaxation oscillator and explain its working. 10

13. *(a)* Explain op-amp as integrator. 5

(b) Explain op-amp as differentiator. 5

14. Draw and explain the internal block diagram of IC 555 timer. 10

15. *(a)* Compare AM and FM. 5

(b) Explain the effect of over modulation in AM. 5

16. Explain D/A conversion using R-2R ladder network with a neat diagram. 10

17. Explain the construction and working of LVDT with a diagram. 10

18. Explain the measurement of temperature using thermistor in bridge circuit. 10

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