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BOARD DIPLOMA EXAMINATION
MARCH/APRIL - 2019
DIPLOMA IN ELECTRICAL AND ELECTRONICS ENGINEERING
ELECTRONICS ENGINEERING - II
FOURTH SEMESTER EXAMINATION

Time: 3 Hours **Total Marks: 80**

PART - A (3m x 10 = 30m)

Note 1:Answer all questions and each question carries 3 marks

2:Answers should be brief and straight to the point and shall not exceed 5 simple sentences

1. **State the conditions required for sustained oscillations.**
2. **Draw the circuit diagram of Hartley oscillators**
3. **List the specifications of 741 IC**
4. **List design rules for implementing ON-Timer using 555 IC**
5. **Define Band width of AM wave**
6. **Define demodulation**
7. **Draw R-2R ladder network of D/A converter**
8. **State the need for D/A converter**
9. **List the advantages and disadvantages of LVDT.**
10. **State the need of Transducers in Measurement systems**

PART - B (10m x 5 = 50m)

Note 1:Answer any five questions and each carries 10 marks

2:The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer

11. (a) **Draw the circuit diagrams of RC phase shift and colpitts oscillators.** **6M**
    (b) **State the need for Square wave Oscillator** **4M**

12. (a) **Explain the need for AF Oscillator** **3M**
    (b) **Explain UJT relaxation Oscillator** **7M**

13. **Draw the Pin diagram of 555 IC and explain the function of each pin.**

14. (a). Explain the Operational Amplifier as differentiator **7M**
    (b). List the applications of OP Amps **3M**

15. (a) **Explain the generation of side bands in AM** **6M**
    (b) **Compare AM and FM** **4M**

16. Explain D/A conversion using R-2R ladder network

17. (a). Write about Semiconductor Sensors **6M**

    (b). List the applications of Sensors **4M**

18. (a). Explain the factors influencing the choice of Transducers **6M**

    (b). List the applications of Transducers **4M**

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