

**6444**  
**BOARD DIPLOMA EXAMINATION**  
**JUNE - 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. Draw the circuit diagram of Colpitts oscillator.
2. Classify different types of Oscillators.
3. List the advantages of ICs over discrete circuits
4. State the concept of virtual ground
5. Draw the wave form of FM wave
6. Define Amplitude modulation index and give the expression.
7. What is the basic principle of D/A conversion
8. Define the terms Accuracy, settling time of D/A converter
9. List the applications of Sensors
10. State the working Principle of Strain Gauge

**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 diagram of Transistor multi vibrator circuit  
 (b). List the applications of oscillator
12. (a). Draw the circuit diagram of RC phase shift Oscillator 8M  
 (b). Explain the need for AF Oscillator 2M
13. (a) List the advantages of ICs over discrete circuits 4M  
 (b) Draw the circuit diagram of Differential Amplifier and explain its working. 6M
14. Explain the Operational Amplifier as  
 i) summer ii) integrator

15. (a). Explain the effect of Over modulation with wave forms 5M  
(b). Compare AM and FM systems 5M
16. Explain the working of Ramp type Digital Voltmeter with the help of a block diagram
17. Describe the construction and working of LVDT ( Linear Variable Differential Transformer)
18. Explain the use of Thermo Couple for the measurement of Temperature

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