C-14-EE-**405**

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BOARD DIPLOMA EXAMINATION, (C-14)

MARCH / APRIL - 2019

DEEE - IV 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) Answer should be brief and straight to the point and shall not exceed five simple sentences.

1 Define : (i) Feedback and (ii) Feedback factor.

2 Draw the circuit diagram of single tuned amplifier.

3 State the conditions required for sustained oscillations in oscillators.

4 List any six applications of Oscillator.

5 List the characteristics of ideal Operational Amplifier.

6 State the need for timer.

7 Draw the wave forms of frequency modulated wave.

8 Define Frequency modulation and Frequency deviation.

9 State the necessity of time base voltage in CRO.

10 State the need for A/D convertors.

PART - B 10×5=50

Instructions : *(1) Answer any **FIVE** questions.*
*(2) Each question carries **TEN** marks.*
(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11 (a) Distinguish between voltage and power amplifier. **5**

(b) Draw the block diagrams of Voltage series and Voltage Shunt feedback amplifiers. **5**

12 Explain the effect of feedback on gain, band width, distortion and noise.

13 Explain the working of Colpitts Oscillator with the help of circuit diagram.

14 Explain the working of UJT Relaxation Oscillator with the help of circuit diagram.

15 Explain the Operation Amplifier as :

(i) Summer (ii) Integrator

(iii) Differentiator (iv) Inverter.

16 Draw and explain the internal block diagram of IC555 timer.

17 (a) Explain the effect of Over modulation and Under modulation in AM with waveforms. **5**

(b) Compare AM and FM systems. **5**

18 Explain A/D conversion using successive approximate method.
