

24227

B. Tech. 5th Semester (EEE)
Examination – February, 2022
ANALOG ELECTRONIC CIRCUITS

Paper : EE-305-F

Time : Three Hours] [Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt five questions in all, selecting one question from each Unit. Question No. 1 is compulsory. All questions carry equal marks.

1. (a) Discuss in brief the harmonic distortion. 5
- (b) Explain why positive feedback is used in oscillator. 5
- (c) Explain in brief the offset error. 5
- (d) Discuss in brief voltage to current converter. 5

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2. (a) Explain in detail the step response of an amplifier. 10

(b) Discuss in detail the type of distortions in amplifiers. 10

3. (a) Explain the operation of Multistage CE amplifier with the help of circuit diagram and its frequency response. 12

(b) Explain the transfer gain with feedback in amplifiers. 8

UNIT - II

4. Explain the construction and working of Wien bridge oscillator with the help of circuit diagram. 20

5. Write short notes on :

(a) Crystal oscillator 10

(b) RC phase shift oscillator 10

UNIT - III

6. (a) Explain the operation of transformer coupled amplifier with the help of circuit diagram. 10

(b) Derive an expression for inverting amplifier for OP-AMP. 10

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7. Write short notes on :

(a) Pushpull Amplifier

(b) Differential Amplifier

UNIT - IV

8. Discuss the following for OP-AMP :

(a) Differentiator

(b) Summing OP-AMP

9. Write short notes on :

(a) Multivibrator

(b) Comparator

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