

Reg. No. :

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|

Question Paper Code: 33404

B.E. / B.Tech. DEGREE EXAMINATION, AUGUST 2021

Third Semester

Electronics and Communication Engineering

01UEC304 - ELECTRONIC CIRCUITS

(Regulation 2013)

Duration: 1:45 hour

Maximum: 50 Marks

PART A - (10 x 2 = 20 Marks)

(Answer any ten of the following questions)

1. Mention the need for biasing.
2. What are the techniques used to stabilizing the Q-point of a transistor?
3. State Miller's theorem.
4. Compare Darlington connection and bootstrapping methods.
5. Define Gain Bandwidth Product.
6. Give the expression for higher cutoff frequency of multistage amplifier.
7. What is meant by cross over distortion?
8. Compare voltage amplifiers and power amplifiers.
9. What are the advantages of negative feedback?
10. List the two advantages of negative feedback.
11. Draw the high frequency equivalent circuit of FETs.
12. What is meant by cross over distortion?
13. List the applications of MOSFET power amplifier?

14. What do you mean by tuned amplifiers?

15. Define Sensitivity

PART – B (3 x 10= 30 Marks)

(Answer any three of the following questions)

16. Discuss self bias circuit using BJT. Explain how it stabilizes the Q-point by deriving the stability factor. (10)
17. Explain the D.C analysis of emitter coupled differential amplifier with a diagram having resistive load. (10)
18. Sketch the high frequency hybrid π model for a transistor in CE configuration and explain the significance of each component. (10)
19. State the different types of distortion occurs in a amplifier and explain them. (10)
20. Draw the circuit of Class-C tuned amplifier and derive the efficiency and also mention its applications and advantages. (10)