# **Question Paper Code: 43404**

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

#### Third Semester

**Electronics and Communication Engineering** 

#### 14UEC304 - ELECTRONIC CIRCUITS

(Regulation 2014)

Duration: 1:45 hour Maximum: 50 Marks

### PART A - $(10 \times 2 = 20 \text{ Marks})$

# (Answer any ten of the following questions)

- 1. Give the advantages of self-biasing.
- 2. Draw the circuit diagram of emitter coupled differential amplifier
- 3. What is a multistage amplifiers? Discuss the low frequency response of an amplifier.
- 4. Draw a voltage series feedback circuit and mention its significance.
- 5. What is meant by heat sink?
- 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

# $PART - B (3 \times 10 = 30 \text{ Marks})$

# (Answer any three of the following questions)

- 16. Explain the working principle of biasing of MOFET and its applications (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  $\pi$  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. Explain the working of large signal tuned amplifier with input and output waveforms. . (10)