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**3rd Sem / Branch : ECE**  
**Sub.: Electronic Devices and Circuits - II**

Time : 3Hrs.

M.M. : 60

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 In multi stage amplifier capacitor is used (CO1)
- a) To match impedance
  - b) To couple two stages
  - c) To limit the bandwidth
  - d) To prevent DC mixing with input or output
- Q.2 The push pull circuit must use operation? (CO2)
- a) Class A
  - b) Class C
  - c) Class B
  - d) Class AB
- Q.3 Distortion is an amplifier with negative feedback? (CO3)
- a) Increases
  - b) Decreases
  - c) Does not change
  - d) None of the above
- Q.4 An oscillator requires?
- a) Positive feedback
  - b) Negative feedback

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- c) An amplifier with positive feedback
- d) An amplifier with negative feedback

- Q.5 A tuned circuit uses (CO4)
- a) R-L
  - b) R-C
  - c) L-C
  - d) Purely resistive Element
- Q.6 In a multivibrator circuit (CO5)
- a) Output is continuous
  - b) No feedback is provided
  - c) Negative feedback is provided
  - d) When one transistor is ON & other is OFF.

**SECTION-B**

**Note:** Objective/Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 A switch has \_\_\_\_\_ states? (CO5)
- Q.8 Define slew rate. (CO7)
- Q.9 What is heat sink? (CO2)
- Q.10 What is negative feedback? (CO3)
- Q.11 Write any one difference between colpitts and Hartley oscillator? (CO4)
- Q.12 What is the range of audio frequency signal? (CO1)

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### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 What are multi stage amplifier. Explain the need of multi stage amplifier. (CO1)
- Q.14 Write the difference between voltage and power amplifier? (CO2)
- Q.15 What is oscillator. Explain bark hausen criteria for oscillation? (CO4)
- Q.16 Explain the working principal of transistor as a switch? (CO5)
- Q.17 What is emitter follower? Write its application also. (CO2)
- Q.18 Explain the working principle of push pull amplifier? (CO2)
- Q.19 What are operational amplifier? Explain operational amplifier as an inverter. (CO5)
- Q.20 What is Feedback? Explain the basic principle of feedback. (CO3)
- Q.21 Discuss about class A power amplifier with its advantages and disadvantages. (CO2)
- Q.22 How Hartley oscillator generate oscillation? (CO4)

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Explain RC coupled amplifier with its block diagram and frequency response curve? (CO1)
- Q.24 How a stable multivibrator work? Explain its application also. (CO5)
- Q.25 Explain the terms : (CO5)
- |              |                         |
|--------------|-------------------------|
| a) CMRR      | b) PSRR                 |
| c) Slew Rate | d) Input offset current |