

Important Topics:

Chapter 1 (BJT) -12 mark

1. Numerical- using biasing (stiff or firm biasing method), guideline 1,2
2. Derivation of CE,CB,CC- input resistance,output resistance and voltage gain, design small signal model
3. Derive transconductance (g_m),

Chapter 2(FET)-13 mark

1. Jfet numerical
2. N-channel enhancement type mosfet working principle

Chapter 3 (oscillator)-13 mark

1. Barkhausen criterion

Chapter 4 (Power Amplifier)-13 mark

1. Class A (Numerical)
2. Class B (Numerical + Transformer coupled push pull class B amplifier-derive efficiency+ graph)
3. Derive Bandwidth

Chapter 5(Power supply)- 9 Mark

1. Working principle of series voltage regulator
2. Current limiting circuit
3. Derive Voltage stability
4. Design voltage regulator using LM317