

## ANALOG ELECTRONICS IMPORTANT QUESTIONS

1. Draw high frequency model of MOSFET
2. Define CMRR of op-amp
3. How a PN Junction formed ? Also discuss V—I characteristics of P-N diode
4. Explain the following Breakdown mechanisms in P-N Junction - Avalanche Breakdown and Zener Breakdown.
5. Explain the working and construction of Enhancement-type MOSFET Transistor
6. Explain the working operation of single stage amplifiers
7. Compare CC, CE and CB configuration of a transistor in term of input impedance, output Impedance, current and voltage gain. 10 Draw and explain input and output characteristics of C.B. configuration. Also explain the various regions of operation.
8. Explain how OP-Amp act as difference Amplifier
9. Explain the working operation of BJT differential pair configuration.
10. Define load line concept
11. Why does CE configuration provide large current amplification
12. Why does differential Amplifiers are preferred to be used as single ended Amplifiers
13. Discuss the working of Full wave Bridge rectifier. Derive the expression for : D.C.O/P Voltage, Rectification efficiency, PIV and Ripple factor
14. What is PIV of a diode in a rectifier circuits
15. What are multi-stage amplifiers
16. Show that a full- wave rectifier is twice as efficient as a half-wave rectifier
17. Explain Wein Bridge oscillator
18. Explain Phase shift oscillator
19. Difference between inverting and non inverting amplifier configuration
20. Op amp as an instrumentation amplifier and integrator
21. Define slew rate
22. Draw clipping and clamping circuits