Important Questions

1. Difference between BJT & FET
2. Difference between D-MOS & E-MOS
3. Define transconductance. How JFET can be used as VVR & Constant Current source.
4. Explain Virtual ground concept.
5. Input & output characteristics of common base configuration along with Circuit diagram.
6. Input & output characteristics of Common emitter configuration.
7. Relation between α, β, γ & its numerical
8. Numericals based on transconductance & shockley's equation.
9. Working of NPN transistor in Common base config.
10. Construction, Working & characteristics of :-
    - a) JFET
    - b) D-MOS
    - c) E-MOS

(11) Ideal characteristics of op-amp.

(12) Ideal voltage transfer curve of op-amp.

(13) Derive expression for o/p voltage or closed loop Gain for — (a) Inverting op-amp
(b) Non-Inverting op-amp

(14) Derive V_o for inverting & Non-inverting Summing amplifier.

(15) op-amp as subtractor

(16) op-amp as Integrator & Differentiator

(17) op-amp as Comparator

(18) Voltage follower/unity gain amplifier.

(19) Different modes of op-amp

(20) Numericals based on CMRR | (covered in PDF of op-amp)

(21) Why CE is preferred for amplification in BJT