

Quiz-2 (Analog circuit)

Branch-ECE, 4th sem. (Choose correct answer)

Que!-1. For a feedback amplifier to be stable, its poles must be in

- (a) Left-half of s-plane (b) Right-half of s-plane
(c) Any-where in s-plane (d) None of these.

Que!-2. When there is no base current in a transistor switch, then output voltage is —

- (a) Low (b) High (c) Unchanged (d) Unknown

Que!-3. Which of the following represents frequency at which short-circuit CE current gain acquires unity magnitude?

- (a) f_α (b) f_β (c) f_T (d) None of these

Que!-4. The gain of FET amplifier can be changed by changing

- (a) r_m (b) g_m (c) R_d (d) None of these

Que!-5. The frequency at which gain drops to 70.7% of mid-band is called —

- (a) cut-off freq. (b) Full-power freq. (c) Half-power freq.

Que!-6. The FET source follower is the example of

- (a) Voltage shunt (b) Current-shunt (c) Current-series (d) Voltage-series.

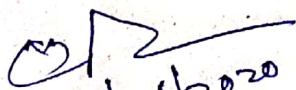
Que!-7. The cascode amplifier is a multi-stage configuration of

- (a) CC-CB (b) CE-CB (c) CB-CC (d) CE-CC

Que!-8. An n-channel FET has $I_{DSS}=2\text{mA}$, $V_p=-4\text{V}$. Then $g_m = ?$

Que!-9. For a BJT, $I_m=38\text{mA}$, $C_\pi=4\times 10^{-13}\text{F}$, $C_\mu=15^{-14}\text{F}$, $\beta=90$. Then $f_\beta = \dots\dots ?$, $f_T = \dots\dots ?$

Que!-10. For a transconductance amplifier, $R_i = \dots\dots ?$, $R_o = \dots\dots ?$



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