

1. Suatu rangkaian Common Kolektor Amplifier mempunyai :

$$\begin{array}{ll} R_S = 3 \text{ K}\Omega & R_L = 100 \Omega \\ R_E = 4 \text{ K}\Omega & C_1 = 5 \mu\text{F} \\ R_B = 20 \text{ K}\Omega & C_2 = 50 \text{ mF} \\ r_\pi = 5 \text{ K}\Omega & g_m = 50 \text{ mS} \end{array}$$

Buat rangkaian ekivalennya dan hitunglah :

- a. ω_{C1} c. nilai ω_L
b. ω_{C2}

2. Suatu rangkaian Common Basis Amplifier mempunyai :

$$\begin{array}{lll} R_S = 100 \Omega & R_C = 6 \text{ K}\Omega & g_m = 50 \text{ mS} \\ R_E = 4 \text{ K}\Omega & R_L = 3 \text{ K}\Omega & C_1 = 10 \mu\text{F} \\ R_B = 20 \text{ K}\Omega & C_1 = 100 \mu\text{F} & C_\mu = 1,4 \text{ pF} \\ r_\pi = 5 \text{ K}\Omega & C_2 = 15 \mu\text{F} & C_\pi = 9 \text{ pF} \end{array}$$

Buat rangkaian ekivalennya dan hitunglah saat $r_x = 0$:

- c. ω_{C1} c. nilai ω_L
d. ω_{C2}

3. Suatu Rangkaian Penguat Common Emiter mempunyai :

$$\begin{array}{lll} R_S = 10 \text{ k}\Omega & r_\pi = 2,5 \text{ k}\Omega & C_2 = 4 \mu\text{F} \\ R_1 = 50 \text{ k}\Omega & r_x = 20 \Omega & C_E = 12 \mu\text{F} \\ R_2 = 20 \text{ k}\Omega & g_m = 20 \text{ mS} & C_\pi = 28,6 \text{ pF} \\ R_C = 5 \text{ k}\Omega & R_L = 1 \text{ k}\Omega & C_x = 3,2 \text{ pF} \\ R_E = 1 \text{ k}\Omega & C_1 = 8 \mu\text{F} & \text{dan } \beta_0 = 100 \end{array}$$

Buat rangkaian ekivalennya dan hitunglah :

- a. ω_{C3} b. ω_H c. ω_L