

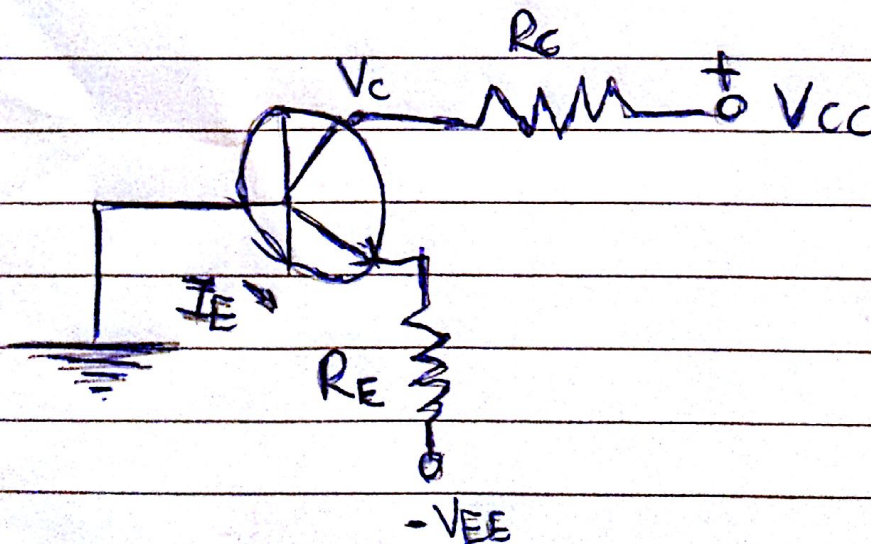
Solution

Current base: $I_B = I_{BQ} + i_b$

where I_{BQ} is the DC value and i_b the AC value

Also, V_{CEQ} is the DC value of V_{CE}

DC equivalent



$$I_E = \frac{V_{EE} - V_{BE}}{R_E} = \frac{4 - 0.7}{3.3} = \frac{3.3}{3.3 \cdot 10^3} = 1 \text{ mA}$$

$$I_C R_C = V_{CC} - V_C \Rightarrow V_C \approx V_{CC} - I_C R_C = 15 - 10^{-3} \cdot 7.1 \cdot 10^3 \Rightarrow V_C = 7.9 \text{ V}$$

$$V_{CEQ} = V_C - V_E$$

Also ~~V_{BE}~~ $V_{BE} = V_B - V_E = 0 - V_E = -0,7V$

So $V_{CEQ} = V_C - (-0,7) \Rightarrow \boxed{V_{CEQ} = 8,6V}$

- AC equivalent

