# EEE 109  HW on Transistor Biasing and Amplifier

1. The transistor parameters for the circuit in Fig. 1 are $\beta = 100$ and $V_A = \infty$. Design the circuit such that it is bias stable and that the Q-point is in the centre of the load line.
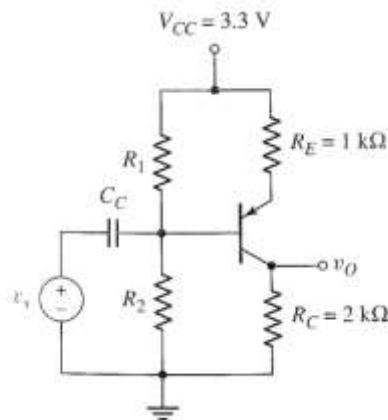


Fig. 1

2. The parameters of the transistor in the circuit in Fig. 2 are $\beta = 100$ and $V_A = 100$ V. (a) Find the dc voltages at the base and emitter terminals. (b) Find $R_C$ such that $V_{CEQ} = 3.5$ V.
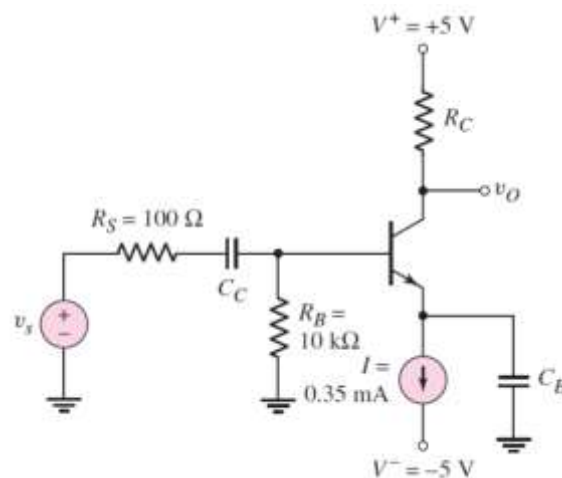


Fig. 2