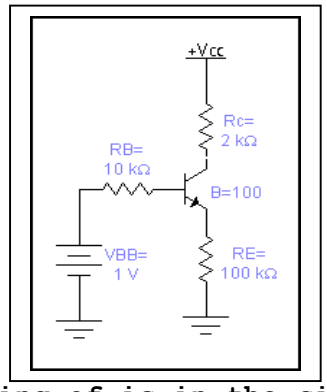
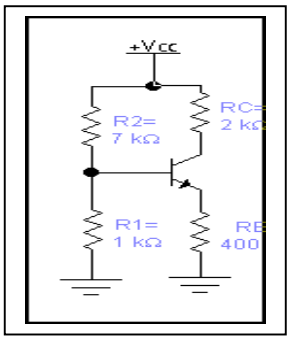
AAST **Sixth term**
Faculty of Engineering **EC233: Electronic Circuits I**
CE-Department **Year: 2004/2005**
Instructor:Dr.M. El-Banna **Sheet:1**

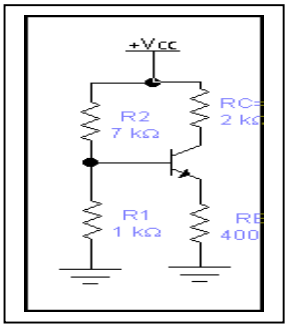
1-Find the location of the Q-point of the amplifier shown in figure,when an npn transistor is used.Assume that Vcc=10V, V_{BB}=1V,R_B=10KΩ,R_C=2kΩ,R_E=100Ω,β=100,V_{BE}=0.7V.What is the new location if R_B=1kΩ.



2-Find the maximum peak-to-peak swing of ic in the circuit shown in figure. Assume that R_1=1KΩ,R_2=7KΩ,V_{CC}=24V,R_C=2KΩ, R_E=400Ω,and β=100.Draw the dc load line.



3-With the circuit shown in figure,find the values of R_1,R_2 that yield the maximum possible peak-to-peak swing of ic. Draw the dc load line.



4-For the amplifier of the shown figure,calculate the following:
a-Power supplied by the battery.
b-Power dissipated by R_1,R_2,R_E and R_C.
c-Power dissipated by the collector junction.