

Duration: 20 minutes.

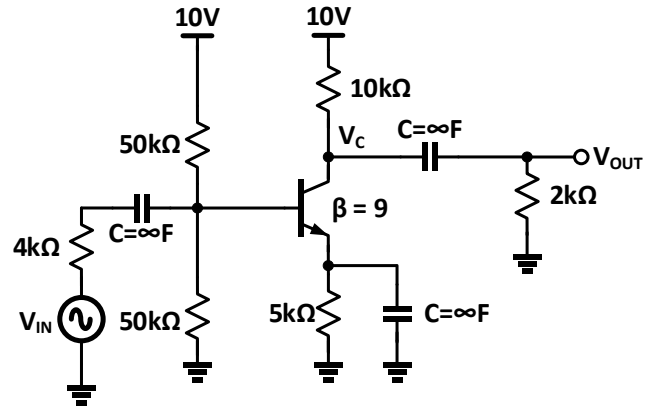
Good Luck!

Name _____

Score _____/30

Q1 (a) (10 points): For the amplifier circuit shown below, calculate the following DC operating point parameters (Assume $|V_{BE}|$ for an ON transistor to be 0.7V):

$V_B =$ _____ $I_C =$ _____ $V_C =$ _____



(b) (10points): Calculate the following small signal parameters (assume $V_{th} = 25mV$):

$g_m =$ _____ $r_{\pi} =$ _____

(c) (10 points) Draw the small signal model of the amplifier shown above using Hybrid Pi model of BJT.