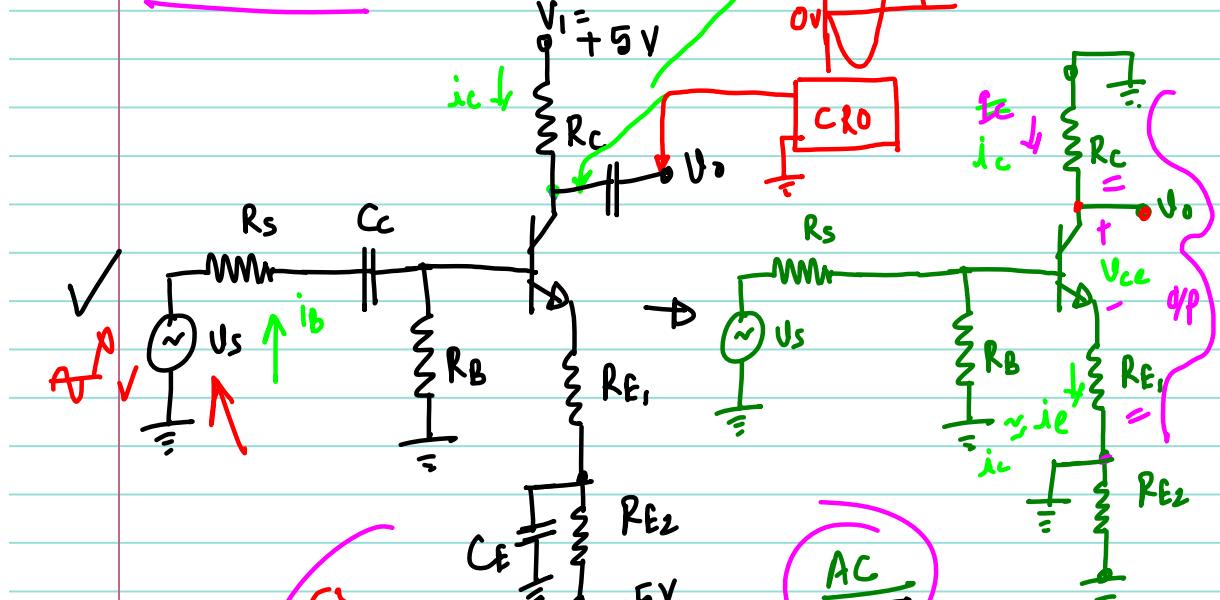
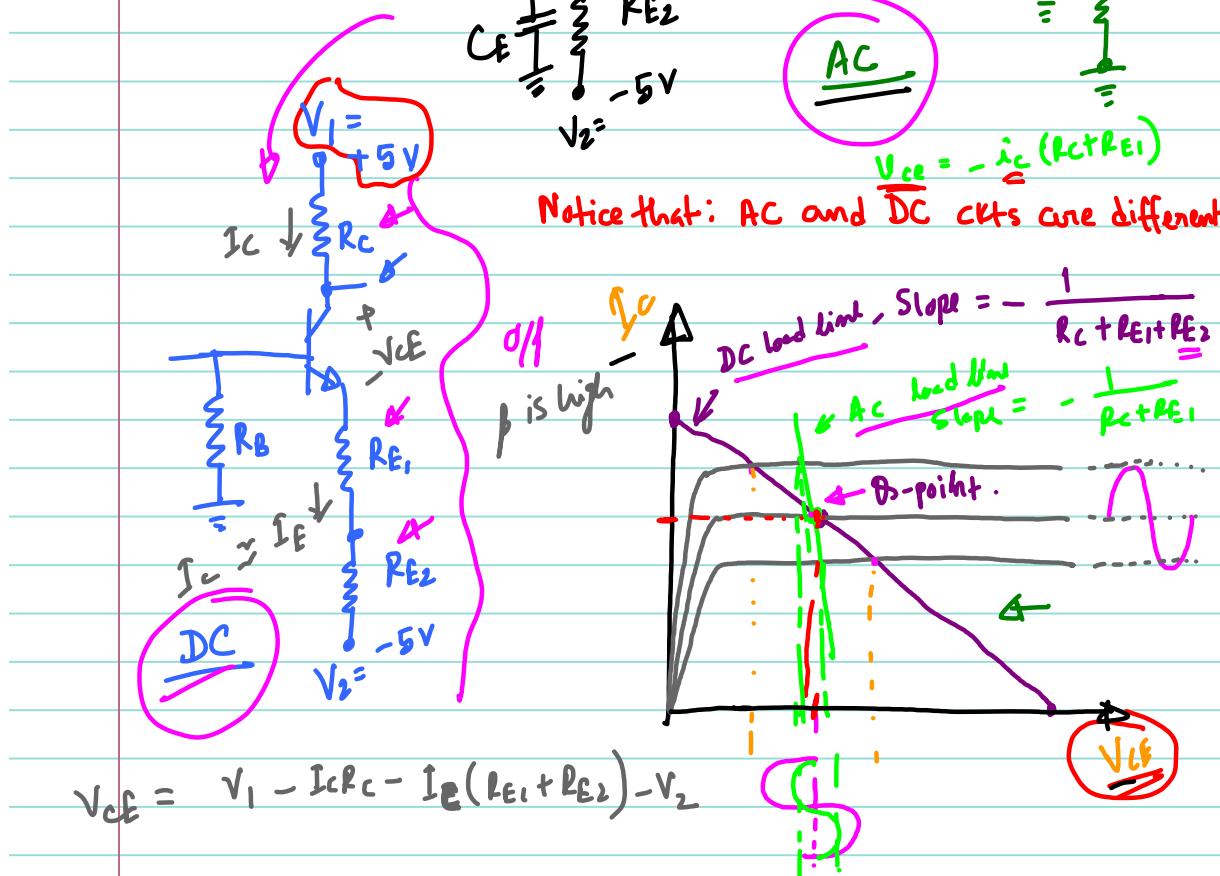


Lec-20

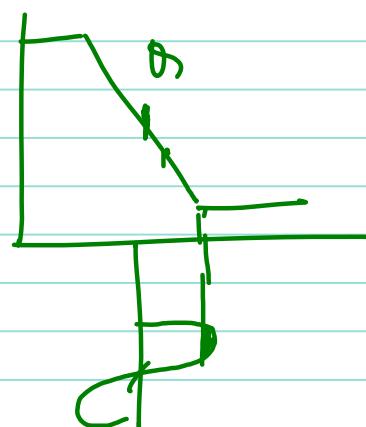
AC load line and its use:

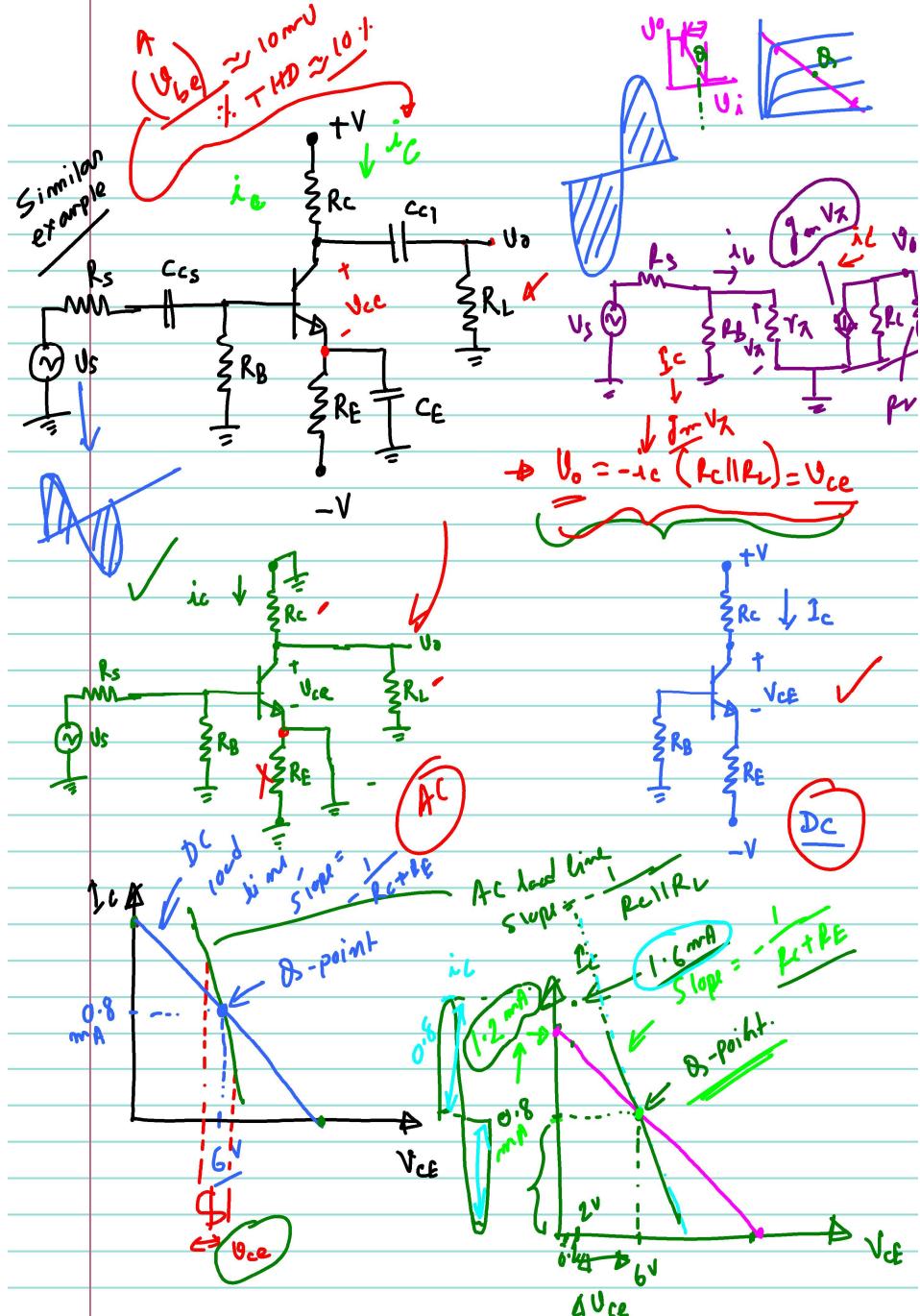


Notice that: AC and DC ckt's are different



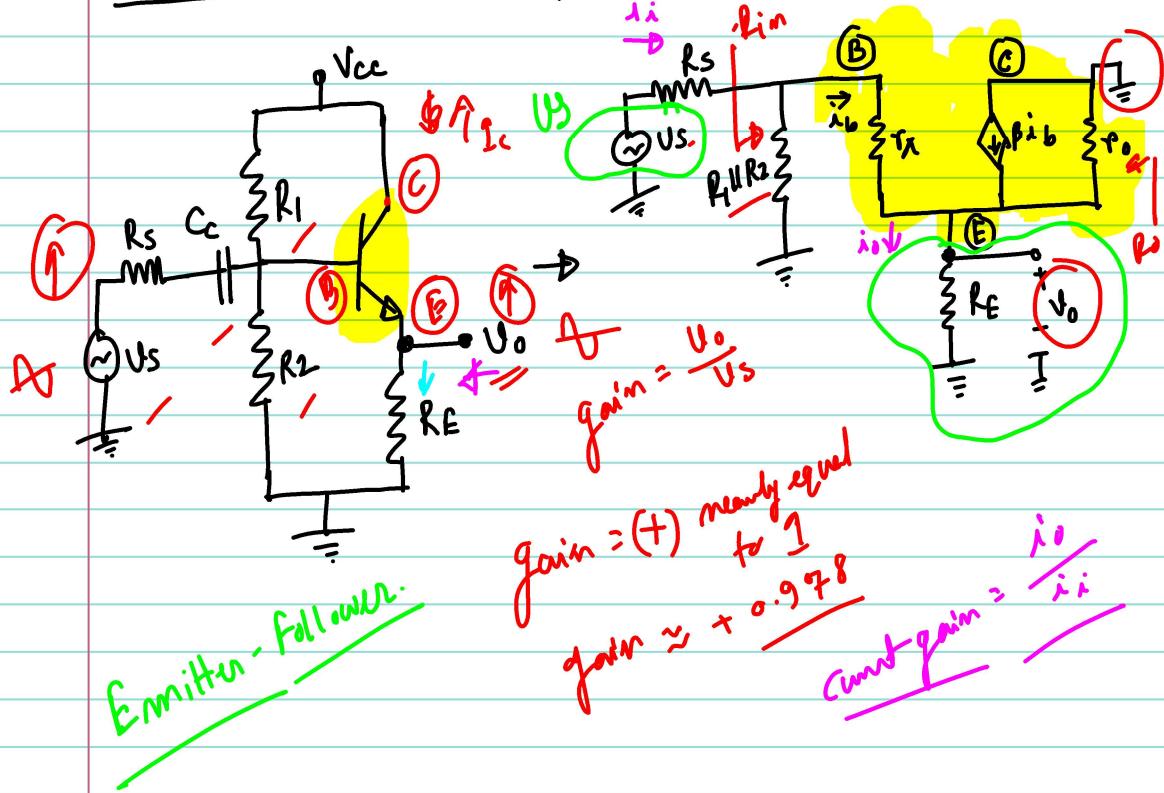
$$V_{CEF} = V_1 - i_C R_C - I_E (R_{E1} + R_{E2}) - V_2$$



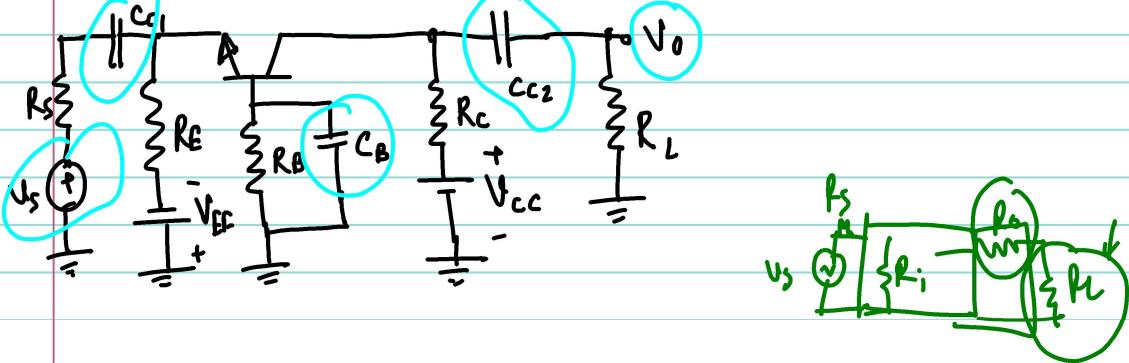


Maximum symmetrical swing \rightarrow from AC load line.

Common-Collector Amplifier (CC Amplifier)



Common-Base Amplifier (CB Amplifier)



Comparison:

Amplifier	Small-Signal Voltage gain	Current gain	Input Resistance	Output Resistance
CE	$ A_U > 1$	$A_i > 1$	Moderate	High
CC	$A_U \approx 1$	$A_i > 1$	High	Low
CB	$A_U > 1$	$A_i \approx 1$	Low	Moderate to High

FREQUENCY RESPONSE of BJT AMPLIFIER

