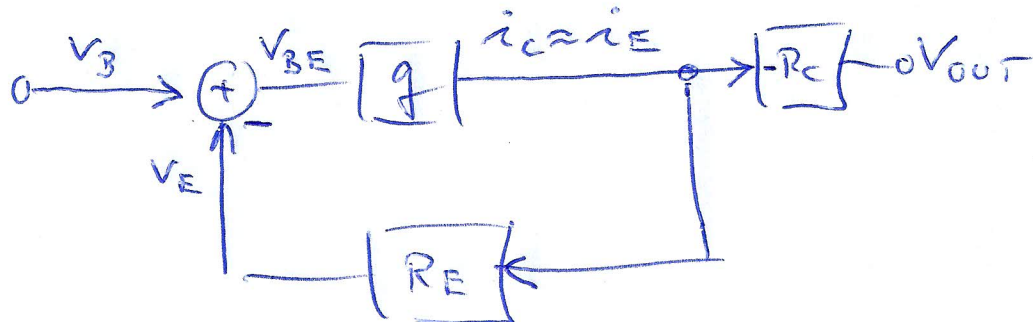
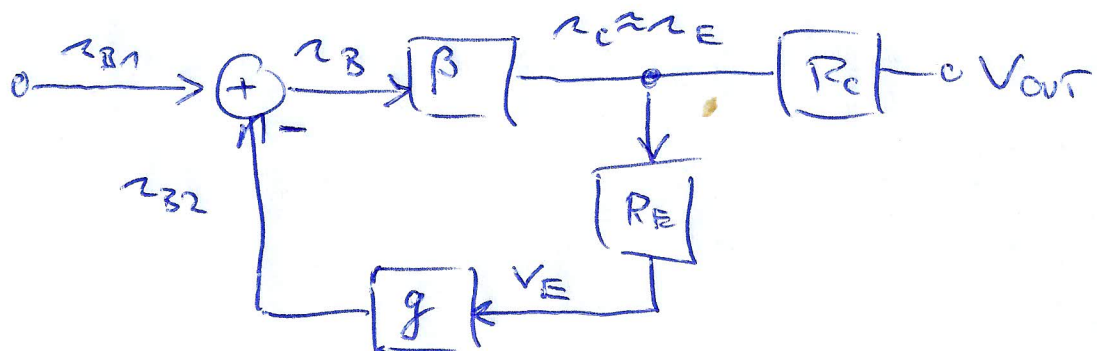


(A) MODEL VOLTAGE CONTROL



LOOP GAIN: $LG_A = -g R_E$

(B) MODEL CURRENT CONTROL



LOOP GAIN: $LG_B = -\beta \cdot g R_E$

(C) MEASUREMENTS: CONFIRM (A) ONLY

$$r_{IN} = r_{BE} (1 + g R_E) \quad \text{or} \quad r_{IN} = r_{BE} (1 - LG_A)$$

$$r_{IN} = r_{BE} (1 - LG_A)$$

$$GAIN = -\frac{g R_C}{1 - g R_E} = -\frac{g R_C}{1 - LG_A}$$