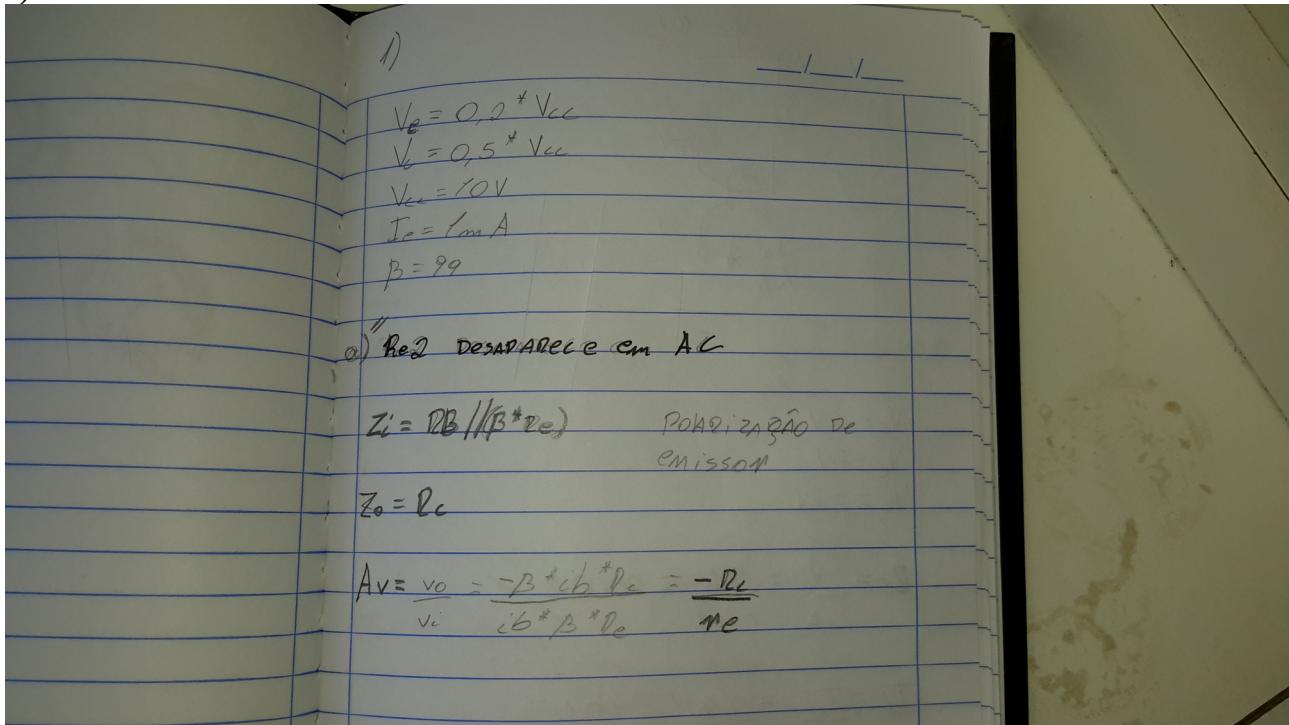
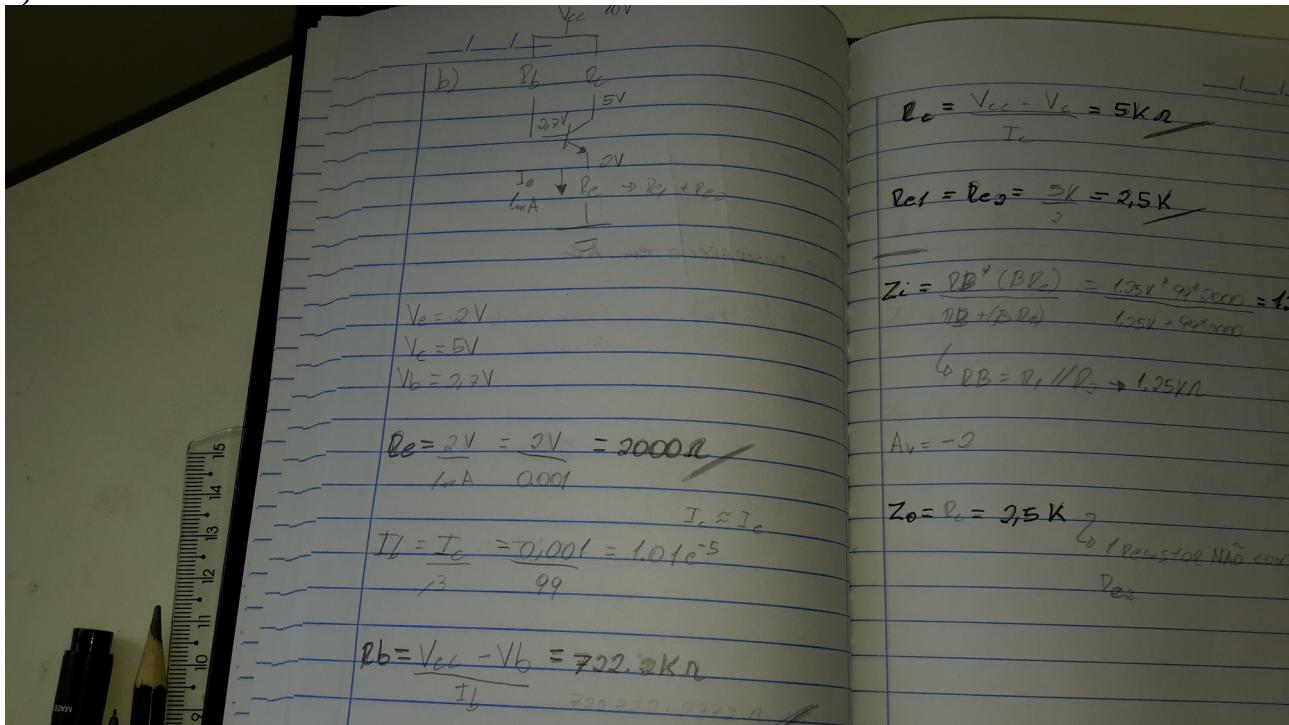


Pergunta 1

a)



b)



$10V$
 $5V$
 $2V$
 $\rightarrow R_2 + R_{C2}$
~~20000R~~
 $I_c \approx I_e$
 $1.01e^{-5}$

$$I_e = \frac{V_{cc} - V_c}{T_c} = 5k\Omega$$

$$R_{ef} = R_{C2} = \frac{5k}{2} = 2.5k$$

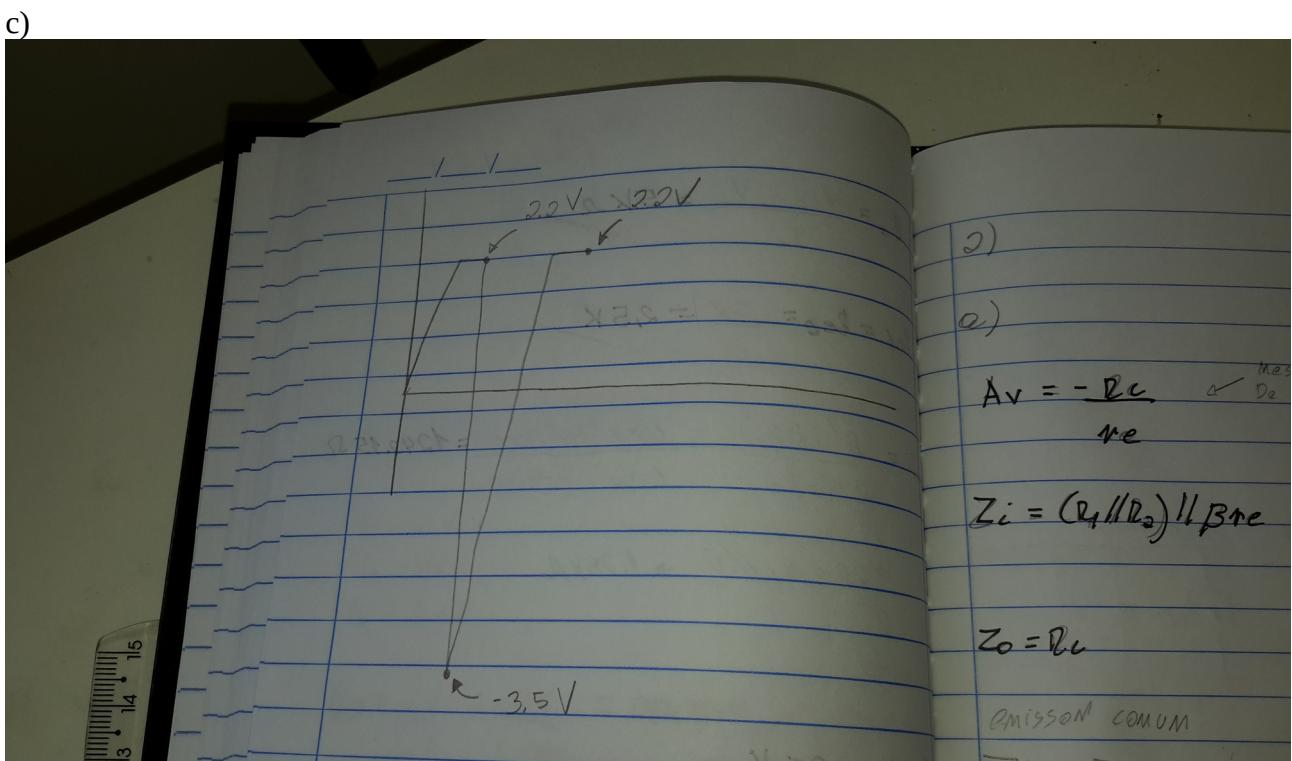
$$Z_i = \frac{RB^*(BD_c)}{RB + (B_c R_c)} = \frac{1.25k * 99 * 2000}{1.25k + 99 * 2000} = 1242.15 \Omega$$

$$R_B = R_1 // R_2 \rightarrow 1.25k\Omega$$

$$A_v = -2$$

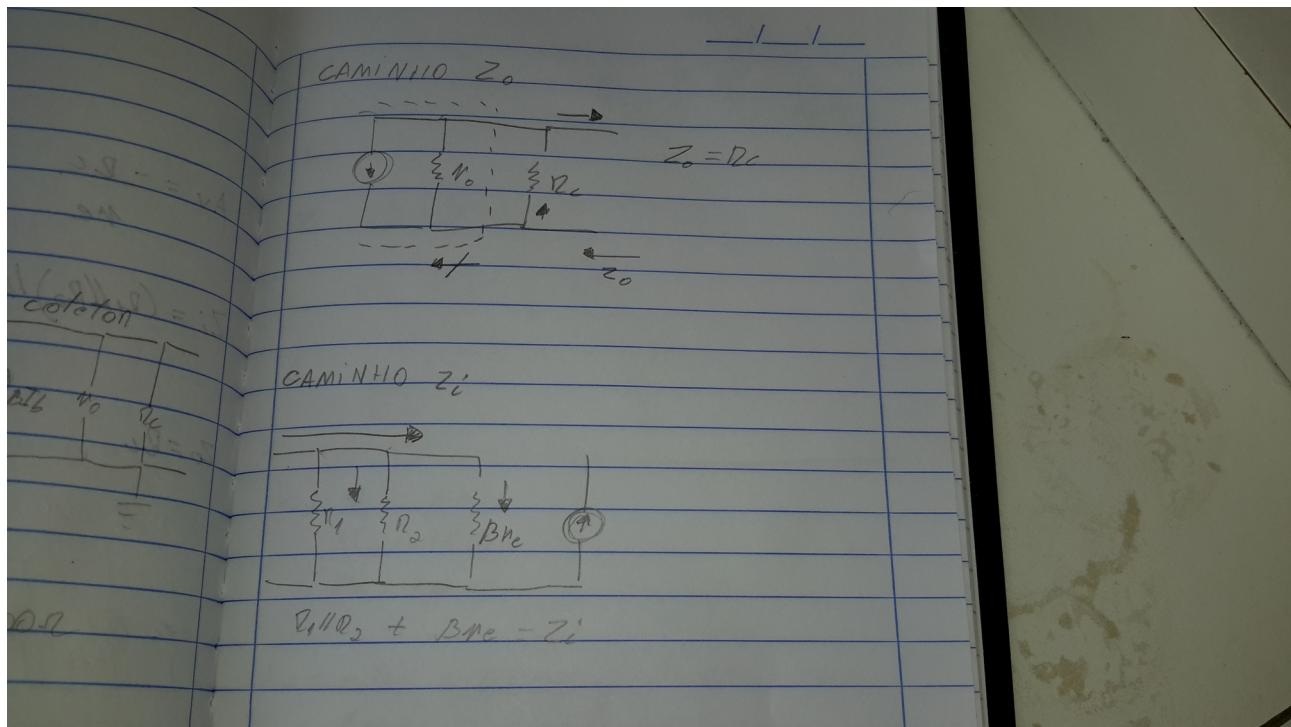
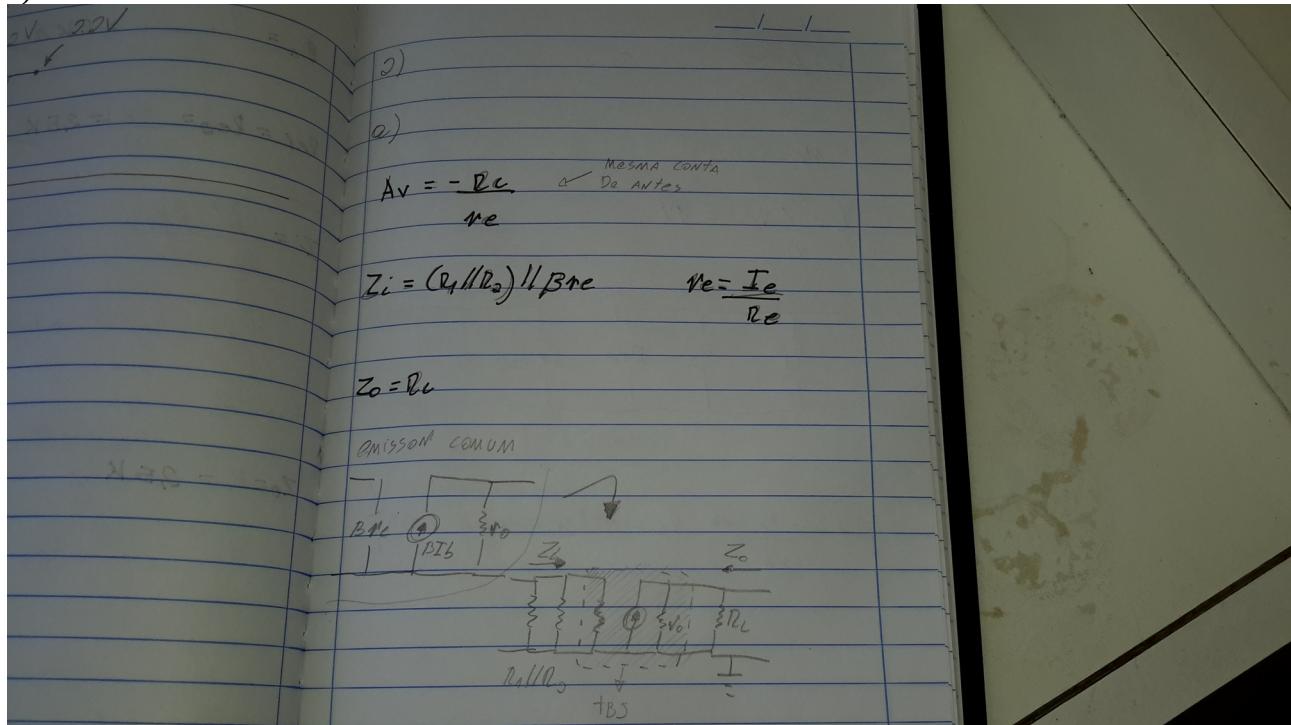
$$Z_o = R_c = 2.5k$$

Z_o + resistor NÃO conta
Resistor



2)

a)



3)

