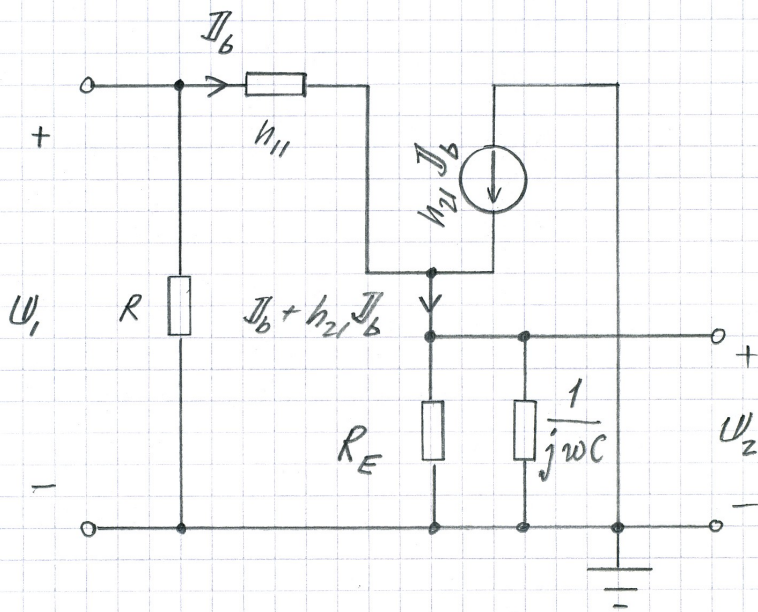


E19



$$U_1 = h_{11} I_b + \frac{R_E \cdot \frac{1}{j\omega C}}{R_E + \frac{1}{j\omega C}} (I_b + h_{21} I_b) \dots (1)$$

$$U_2 = \frac{R_E \cdot \frac{1}{j\omega C}}{R_E + \frac{1}{j\omega C}} (I_b + h_{21} I_b) \dots (2)$$

$$(2) \rightarrow I_b = U_2 \left( \frac{1 + j\omega C R_E}{R_E (1 + h_{21})} \right)$$

INS i (1)  $\rightarrow$

$$U_1 = h_{11} U_2 \left( \frac{1 + j\omega C R_E}{R_E (1 + h_{21})} \right) + U_2$$

NUMERISKT :

$$\underbrace{10\sqrt{2} \cdot e^{j0^\circ}}_{U_1} = 4000 U_2 \left( 3,92 \cdot 10^{-6} + j \cdot 1,96 \cdot 10^{-4} \right) + U_2$$

$$10\sqrt{2} = U_2 (0,0157 + j0,784) + U_2$$

$$U_2 \approx \frac{10\sqrt{2}}{1,02 + j0,784} \approx$$

$$\approx 7,8\sqrt{2} \cdot e^{-j38^\circ} \text{ V}$$

$$\Rightarrow \underline{u_2(t) = 7,8\sqrt{2} \sin(10^3 t - 38^\circ) \text{ V}}$$