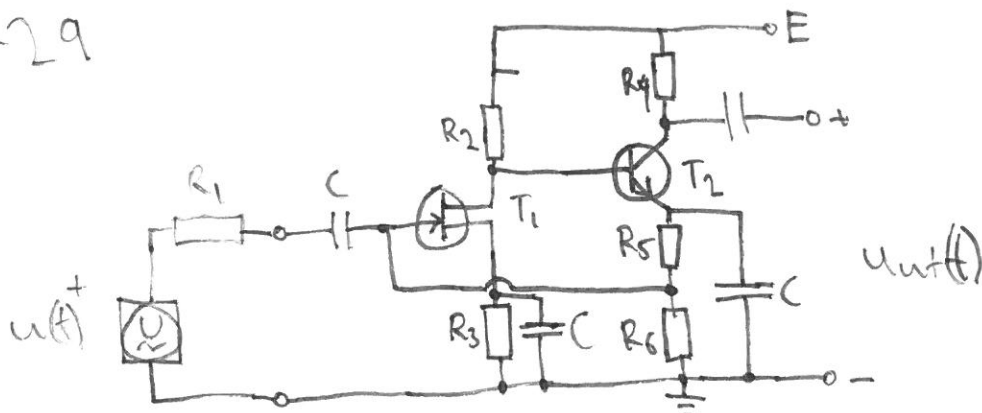


B-29

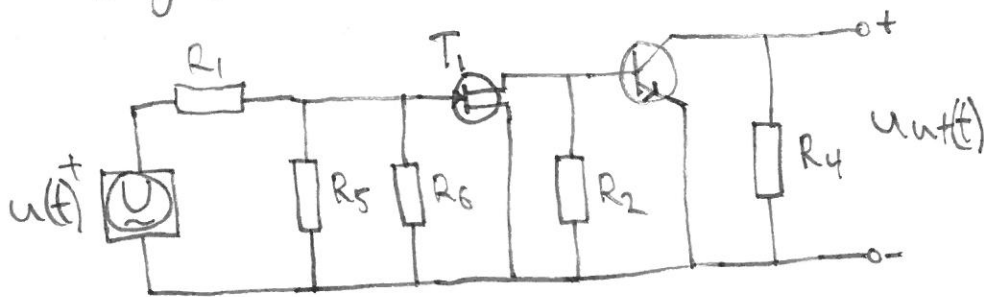


$E = 9V, R_2 = 2,2k\Omega, R_3 = 1,0k\Omega, R_4 = 1,3k\Omega, R_5 = 1,8k\Omega$   
 $R_6 = 600\Omega, R_1 = 200\Omega, u(t) = 6 \cdot \sin(10^3 t) [mV]$

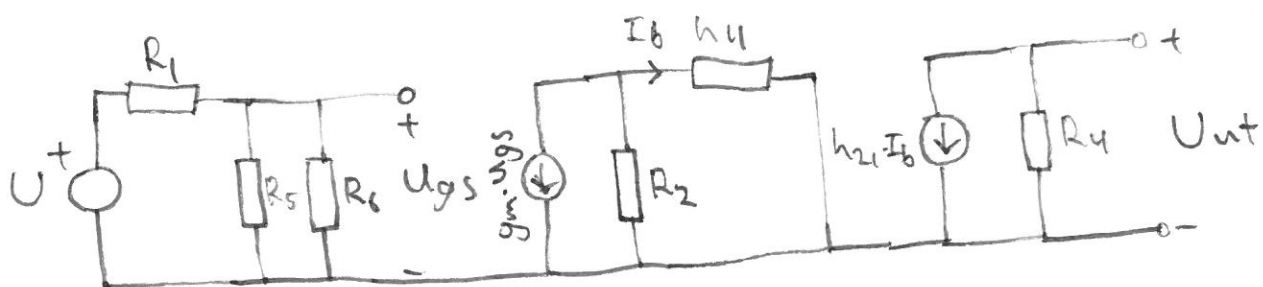
$T_1: g_m = 3 mS \quad T_2: h_{11} = 2k\Omega, h_{21} = 100$

C stora

Signal schema:



Ekvivalent småsignal schema:



$u_{gs} = \frac{U \cdot R_5 // R_6}{R_1 + R_5 // R_6} \quad (1) \quad I_b = \frac{-g_m \cdot u_{gs} \cdot R_2}{R_2 + h_{11}} \quad (2) \quad U_{out} = -R_4 \cdot h_{21} \cdot I_b \quad (3)$

(1)-(3)  $\Rightarrow$

$U_{out} = \frac{R_2 \cdot R_4 \cdot R_5 // R_6}{(R_1 + R_5 // R_6) \cdot (R_2 + h_{11})} \cdot g_m \cdot h_{21} \cdot U \Rightarrow U_{out} = 0.85 V$

$\Rightarrow u_{out}(t) = 0.85 \cdot \sin(10^3 t) [V]$