Osnovi analogne elektronike – februar 2022 - resenja

3. a) $R_2 = (V_G - 2V_D)/I_{D1} - R_3 = 180\Omega$
b) $v_I = 0.6V + 6.37\mu V sin(\omega t)$

4. a) $R_B = 721.6\Omega$
b) $Av = -g_m R_C$, $R_{ul} = R_B \| r_\pi$, $R_{izl} = R_c$
c) $Av = -121.1$, $R_{ul} = 82\Omega$, $R_{izl} = 2k\Omega$

7. zadatak

a) $R_0 = 400\Omega$

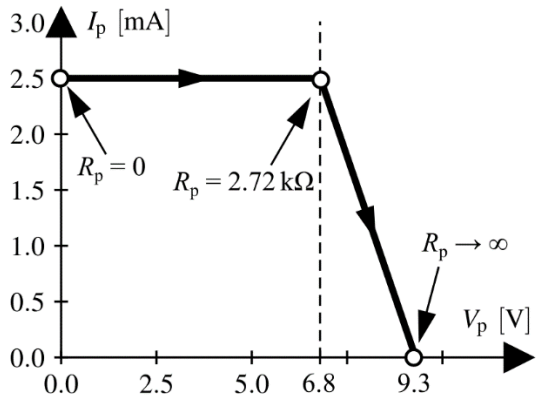
b) $a_v = \underbrace{-g_{m1}\left(R_0 \parallel \frac{1}{g_{m2}}\right)}_{\text{Prvi stepen}} \cdot \underbrace{g_{m2}R_S}_{\text{Drugi stepen}}$,$R_i = R_S$

c) $a_v = -4, R_i = 7k\Omega$

8. zadatak

a) $I_{ks} = 5x$ mA.

b) Traženi dijagram je na slici



c) $R_{p,max} = 860\ \Omega$.