

REŠENJA ZADATAKA

1. a) $I_D = 159\mu\text{A}$.

b) $a_v = \frac{v_i}{v_u} = g_m R_1 = 10.15$

c) $R_{ul} = R_S \parallel \frac{1}{g_m} = \frac{R_S}{1 + g_m R_S} = 1.48\text{k}\Omega$

4.

$v_I[\text{V}] = 12\text{V} = \text{const}$, za $-5\text{V} \leq v_G \leq -4\text{V}$ (IOP-poz. zasićenje, D -OFF, T -OFF);

$v_I[\text{V}] = -3v_G[\text{V}]$, za $-4\text{V} \leq v_G \leq 0.4\text{V}$ (IOP-lin. režim, D -OFF, T -OFF);

$v_I[\text{V}] = -0.75v_G[\text{V}] - 0.9$, za $0.4\text{V} \leq v_G \leq 5\text{V}$ (IOP- lin. režim, D -ON, T -DAR).