REŠENJA ZADATAKA

3. a) $\underline{Z}_{TEV} = (0,2 + j0,6)\Omega$

$\underline{U}_{TEV} = (0,4 + j0,2)\mathrm{V}$
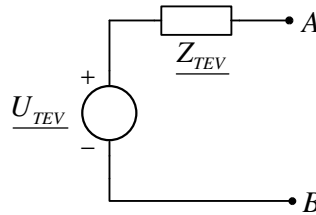
b) $\underline{S} = 0,08 + j0,04$; $\quad P = 0,08\mathrm{W}$; $\quad Q = 0,04\mathrm{VAr}$.

$\underline{I}_P = 0,3 - j0,1$; $\qquad\qquad i_P(t) = 0,447\mathrm{A}\cos(2\pi ft - 18,43°)$

c) $\underline{Z}_P = \underline{Z}_{TEV}^* = (0,2 - j0,6)\Omega$

$R_P = 0,2\Omega$ $\qquad\qquad\qquad C_P = 17,68\mu\mathrm{F}$
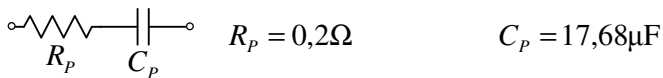
4.

Za $-12\mathrm{V} \le v_G \le -1.4\mathrm{V}$: D_1-ON, D_2-OFF, $v_P[\mathrm{V}] = -0.4(v_G[\mathrm{V}]+1.4)$.

Za $-1.4\mathrm{V} \le v_G \le 1.4\mathrm{V}$: D_1-OFF, D_2-OFF, $v_P[\mathrm{V}] = 0 = const$.

Za $1.4\mathrm{V} \le v_G \le 12\mathrm{V}$: D_1-OFF, D_2-ON, $v_P[\mathrm{V}] = 0.4(v_G[\mathrm{V}]-1.4)$.