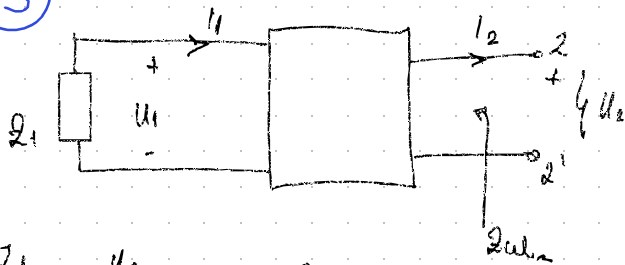


DZ 9

3



$$Z_{11} = 6 \quad Z_{12} = Z_{21} = 4$$

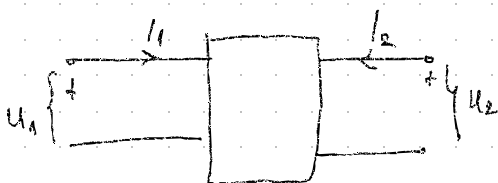
$$Z_{22} = 3$$

$$Z_L = 2$$

$$Z_{ul2} = -\frac{U_2}{I_2} = Z_{22} - \frac{Z_{12} Z_{21}}{Z_{11} + Z_1}$$

$$Z_{ul} = 3 - \frac{16}{6+2} = 3 - 2 = \underline{\underline{1}}$$

4 Koliko znate struje otkrivanja?



$$y_{11} = 5 \quad y_{12} = 2S$$

$$y_{21} = 5 \quad y_{22} = 3$$

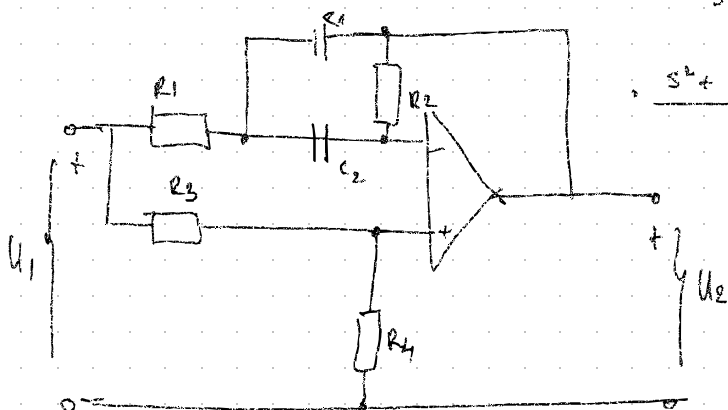
$$U_1 = 3 \quad U_2 = 3$$

$$I_1 = y_{11} \cdot U_1 + y_{12} \cdot U_2 = 5 \cdot 3 + 2S \cdot 3 \rightarrow \underline{\underline{I_1 = 9S}}$$

$$I_2 = y_{21} \cdot U_1 + y_{22} \cdot U_2 = 3S + 3S = \underline{\underline{6S}}$$

5 $G_1 = G_2 = 0.25$ $C_1 = C_2 = 1$

$$T(s) = \frac{R_4}{R_3 + R_4}$$



$$s^2 + \frac{R_1(C_1 + C_2) - R_2 C_2}{R_3 + R_4} s + \dots$$

bla bla

opi oblik: PB drugog reda (realizacija)

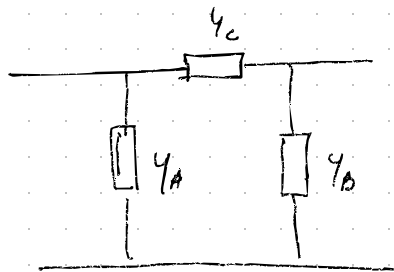
$$\Rightarrow H_{PB}(s) = K \cdot \frac{s^2 + \omega_p^2}{s^2 + \frac{\omega_p}{Q} s + \omega_p^2}$$

$$\omega_p^2 = \frac{1}{R_1 R_2 C_1 C_2} \rightarrow \omega_p = \sqrt{\frac{R_1 R_2}{C_1 C_2}}$$

$$\omega_p = \sqrt{\frac{1}{\frac{16}{4}}} = \underline{\underline{\frac{1}{4}}}$$

Za recipročni četverpol odredi dvivalentni u P+ spoju

$$y_{11}=3 \quad y_{12}=y_{21}=2 \quad y_{22}=4$$



$$y_A = y_{11} - y_{12} \rightarrow 1$$

$$y_B = y_{22} - y_{21} \rightarrow 2$$

$$y_C = y_{12} = y_{21} \rightarrow 2$$