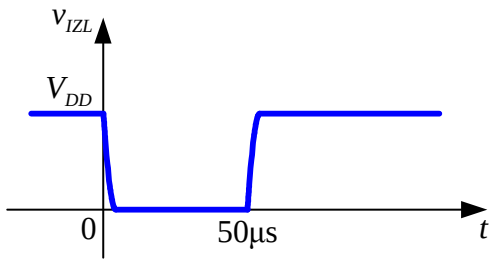
REŠENJA ZADATAKA

2.

$$v_{IZL}(t)=\begin{cases}5\text{V}, & t<0\\ 5\text{V}\cdot e^{-8{,}333\cdot 10^8\cdot t}, & 0\le t<50\mu\text{s}\\ 5\text{V}\cdot\left(1-e^{-8{,}333\cdot 10^8\cdot(t-50\mu\text{s})}\right), & t>50\mu\text{s}\end{cases}$$

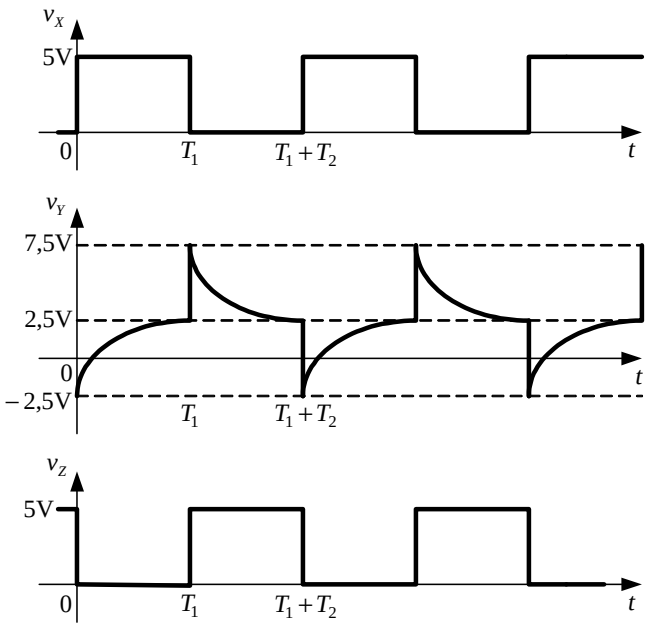


4. a)

$v_Y(t)=5\text{V}-7{,}5\text{V}\cdot e^{-2000t}$, za $0<t<T_1$

$v_Y(t)=7{,}5\text{V}\cdot e^{-2000(t-T_1)}$, za $T_1<t<T_1+T_2$

$$f=\frac{1}{T_1+T_2}=910{,}25\text{Hz}$$

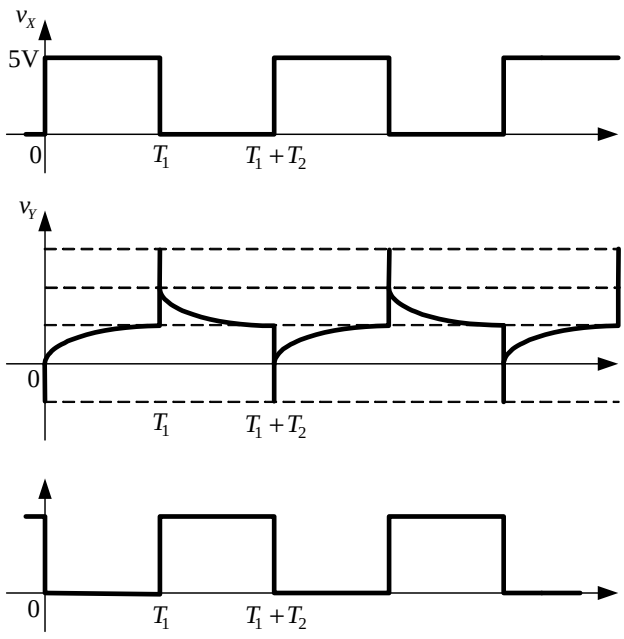


b)

$v_Y(t)=5\text{V}-5\text{V}\cdot e^{-2000t}$, za $0<t<T_1$

$v_Y(t)=5\text{V}\cdot e^{-2000(t-T_1)}$, za $T_1<t<T_1+T_2$

$$f=\frac{1}{T_1+T_2}=1443\text{Hz}$$



6. a) Prekidač je zatvoren za $Q_i = 0$, a otvoren za $Q_i = 1$.

b) $R_D = 10\text{k}\Omega$ $R_0 = 90\text{k}\Omega$ $R_1 = 40\text{k}\Omega$ $R_2 = 15\text{k}\Omega$ $R_3 = 2{,}5\text{k}\Omega$

c) $R_{bo} = 12{,}5\text{k}\Omega$ $V_{MAX} = 3{,}5\text{V}$ $V_{MIN} = -4\text{V}$

5.

$A = a_2 a_1 a_0$ $\quad$ "1" $= V_{DD} = 5V$

$B = b_2 b_1 b_0$ $\quad$ "0" $= GND = 0V$