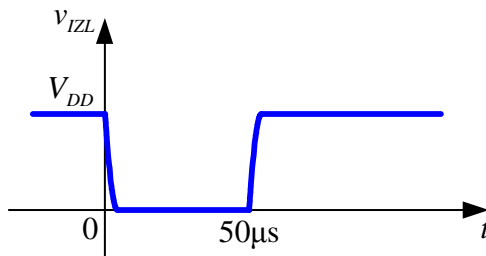


## REŠENJA ZADATAKA

### 1. KOLOKVIJUM

2.

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



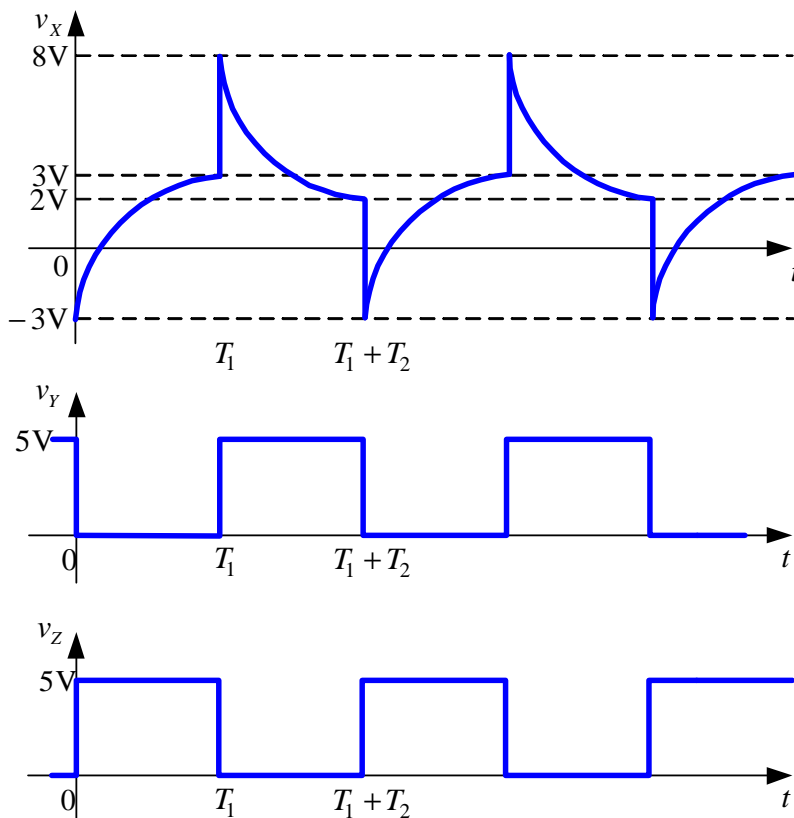
### 2. KOLOKVIJUM

$$2. v_x(t) = 5V - 8V \cdot e^{-10000t}, \text{ za } 0 < t < T_1$$

$$v_x(t) = 8V \cdot e^{-10000(t - T_1)}, \text{ za } T_1 < t < T_1 + T_2$$

$$T_1 = T_2 = 138,63\mu s$$

$$f = \frac{1}{T_1 + T_2} = 3606,7\text{Hz}$$



## 3. KOLOKVIJUM

$$2. a) v_{IZ} = -\frac{V_{REF}}{48R} R_f (8Q_3 + 4Q_2 + 2Q_1 + Q_0).$$

$$b) R_f = 2,4k\Omega.$$

S obzirom da je D/A konvertor unipolaran i da je  $v_{IZ} \geq 0$ , na osnovu rezultata iz tačke a) sledi da mora biti  $V_{REF} < 0$ .