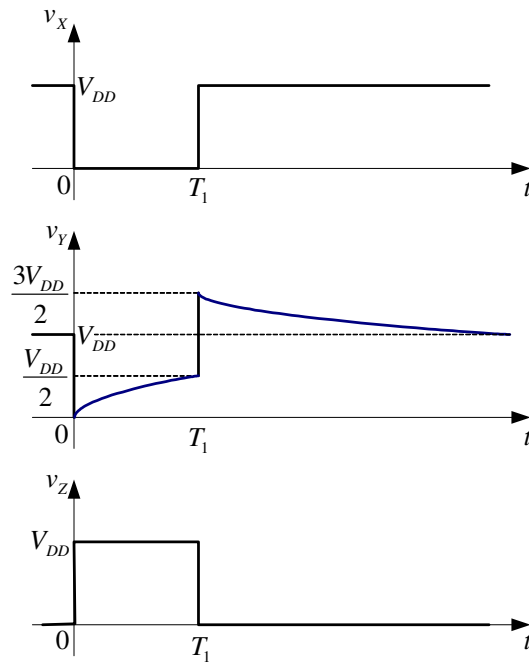


REŠENJA ZADATAKA

2. $v_Y(t) = 5V = const$, $v_X(t) = 5V = const$, $v_Z(t) = 0 = const$ za $t < 0$,
 $v_Y(t) = 5V \cdot (1 - e^{-1000t})$, $v_X(t) = 0 = const$, $v_Z(t) = 5V = const$ za $0 < t < T_1$,
 $v_Y(t) = 5V + 2,5V \cdot e^{-1000(t-T_1)}$, $v_X(t) = 5V = const$, $v_Z(t) = 0 = const$ za $t > T_1$.
 $T_1 = 0,001 \cdot \ln 2 = 0,693ms$



Kolo obavlja funkciju monostabilnog multivibratora.

3.

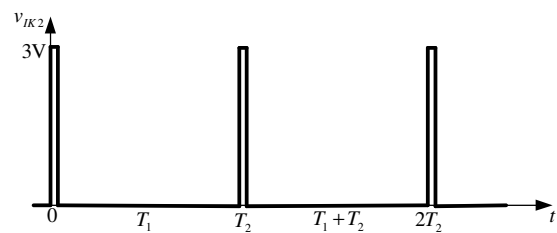
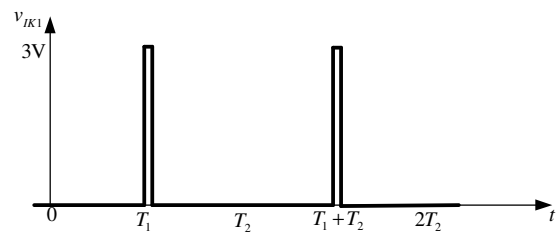
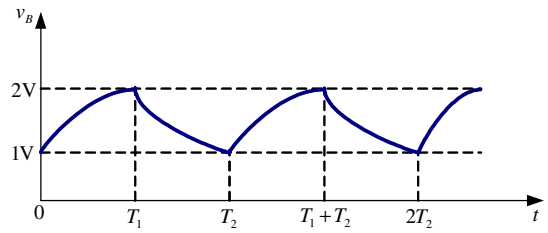
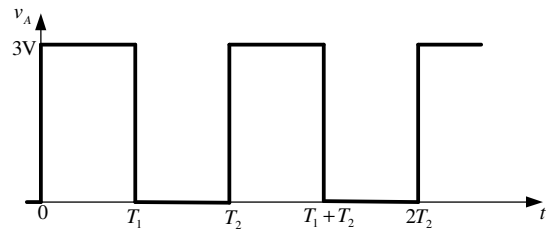
$$v_B(t) = 3V - 2V \cdot e^{-\frac{t}{100\mu s}}; 0 \leq t \leq T_1$$

$$v_B(t) = 2V \cdot e^{-\frac{t-T_1}{100\mu s}}; T_1 \leq t \leq T_2$$

$$T_1 = 69,3\mu s$$

$$T_2 = 138,6\mu s$$

$$f = \frac{1}{T_2} = 7,21kHz$$



Kolokvijum traje 2,5 sata.