

# Elementi elektronike – FEBRUAR 2020 - REŠENJA

3.  $V_{OUT} = I_G R_3 + V_D = 0.7V$ ,  
 $v_{out} = v_g R_2 \parallel (R_3 + r_d) / (R_2 \parallel (R_3 + r_d) + R_1) = 0.33 \text{ mV} \sin(\omega t)$

4. Pogledati rešenja kolokvijuma školske 2019/2020

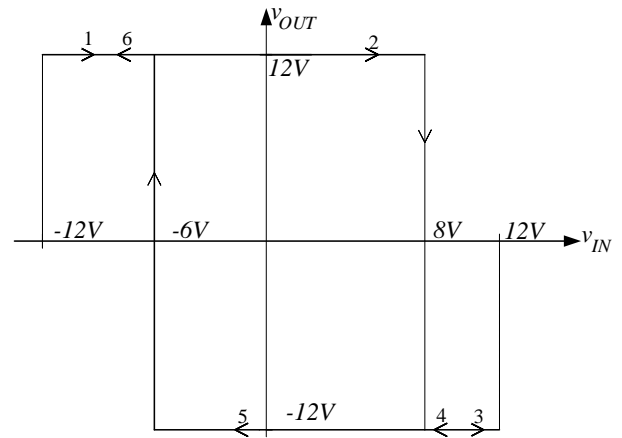
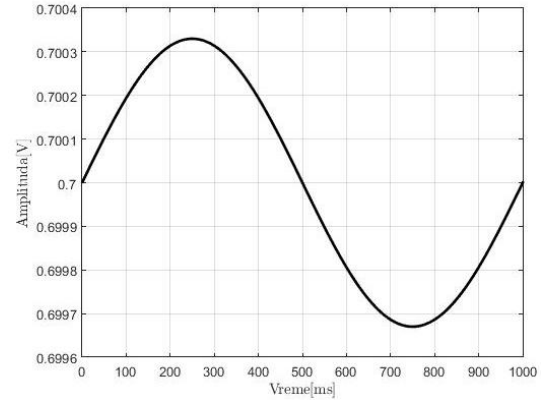
7. Segmenti:

1,2:  $v_{IN} \in [-12V, 8V)$ ,  $v_{OUT} = 12V$ , D-OFF

3:  $v_{IN} \in [8V, 12V)$ ,  $v_{OUT} = -12V$ , D-ON

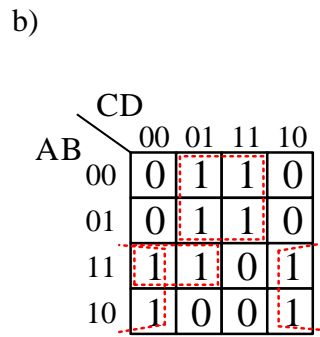
4,5:  $v_{IN} \in [12V, -6V)$ ,  $v_{OUT} = -12V$ , D-ON

6:  $v_{IN} \in [-6V, -12V)$ ,  $v_{OUT} = 12V$ , D-OFF



8. a)

A	B	C	D	Y
0	0	0	0	0
0	0	0	1	1
0	0	1	0	0
0	0	1	1	1
0	1	0	0	0
0	1	0	1	1
0	1	1	0	0
0	1	1	1	1
1	0	0	0	1
1	0	0	1	0
1	0	1	0	1
1	0	1	1	0
1	1	0	0	1
1	1	0	1	1
1	1	1	0	1
1	1	1	1	0



$$Y = \bar{A}D + A\bar{D} + AB\bar{C}$$

c)

$$\bar{Y} = \overline{\bar{A} \cdot D \cdot \bar{D} \cdot A \cdot \bar{A}B \cdot \bar{C}}$$

9.

CLK							
Q <sub>0</sub>	0	1	1	1	0	0	1
Q <sub>1</sub>	0	0	1	1	1	0	0
Q <sub>2</sub>	0	0	0	1	1	0	0
	0	1	3	7	6	0	1