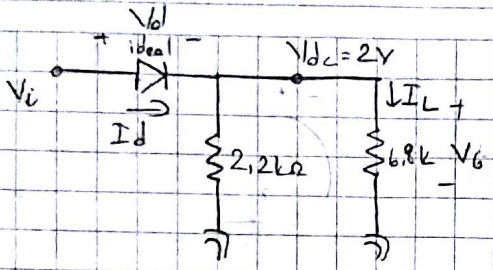
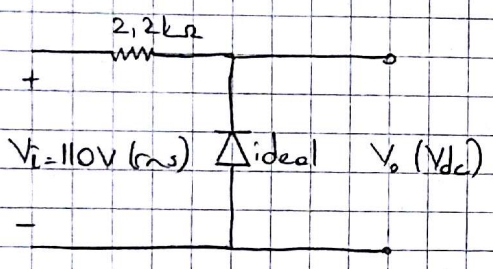


24)



$$+2V + 3000I_L \quad I_L = -0,2mA$$

25)

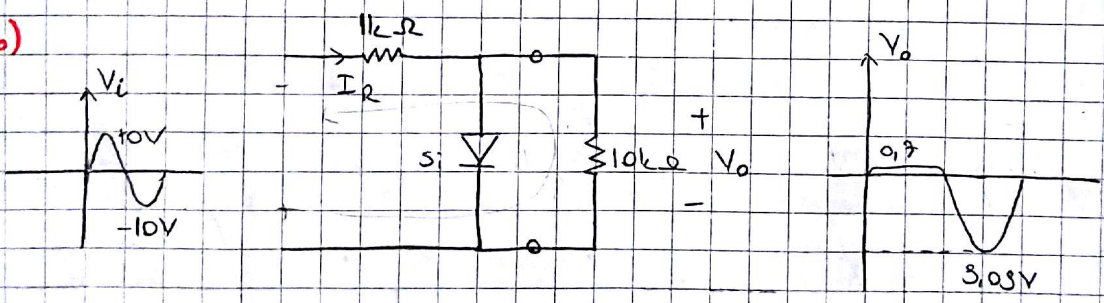


$$V_m = \sqrt{2} \cdot (110V) = 155,56$$

$$V_{DC} = V_m \cdot 0,318 = 49,47V$$



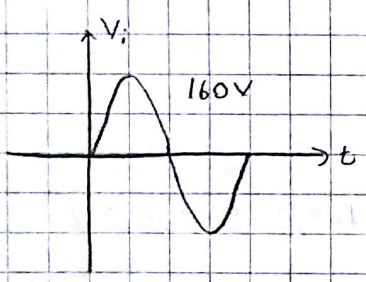
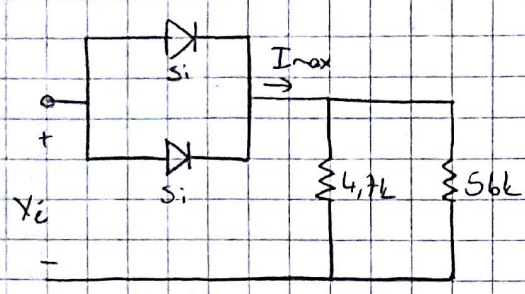
26)



$$11k \cdot I = 10V \quad V_o = 10k \cdot I$$

$$I = 0,909mA \quad \Rightarrow V_o = 10k \cdot \frac{10}{11k} = 9,09$$

27)



- a) Her diyot için $P_{max} = 14mW$ iken her diyodun max akım anma değerini belirleyiniz.
- b) $V_{i,max} = 160V$ iken I_{max} 'i belirleyiniz.
- c) (b) sıkkındaki sonucu kullanarak $V_{i,max}$ değerinde her bir diyottan geçen akımı belirleyiniz.
- d) Tek bir diyot varken diyot akımını belirleyiniz ve max anma değeri ile karşılaştırınız.

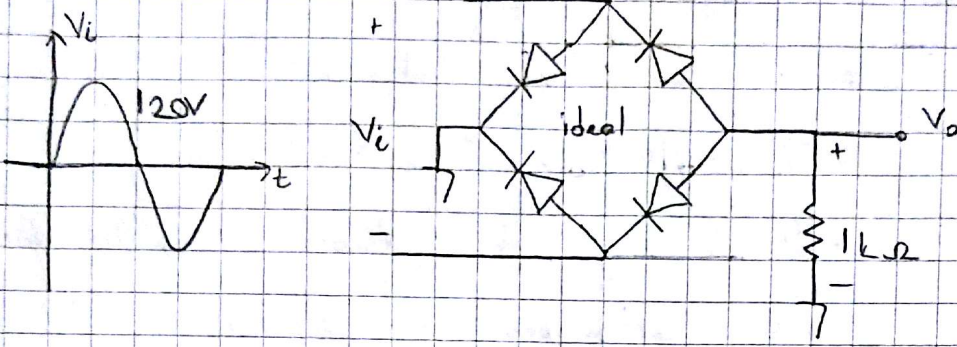
a) $P_{max} = 14mW$ $P = I_D V_D$ $I_D = \frac{P}{V_D} = \underline{\underline{20mA}}$

b) $4,7 // 56 \Rightarrow 4,34 k\Omega$
 $-160 + 0,7 + 4,34k \cdot I_m = 0$ $I_m = \underline{\underline{37,3mA}}$

c) $I_D = \frac{I_m}{2} = \frac{37,3mA}{2} = \underline{\underline{18,65mA}}$

d) $I_D = 20mA$ $20mA > 18,65mA$

28)



a) Silikon diyot kullanılıyorsa yük üzerindeki dc gerilim nedir?

$$V_m = 120 \cdot \sqrt{2} = 168,705 \text{ V} \quad 168,705 - 1,4 = 168,305 \text{ V} \quad V_{dc} = 168,305 \cdot (2 \cdot 0,318) \\ = \underline{\underline{107,04 \text{ V}}}$$

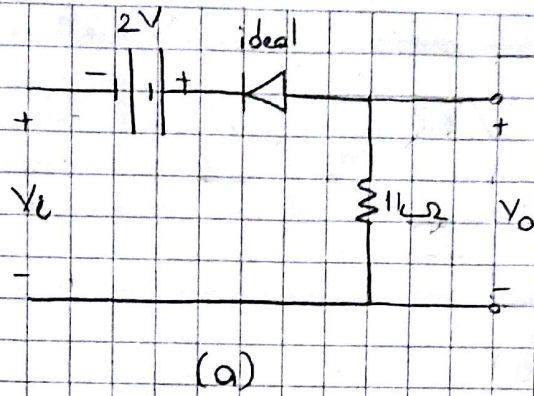
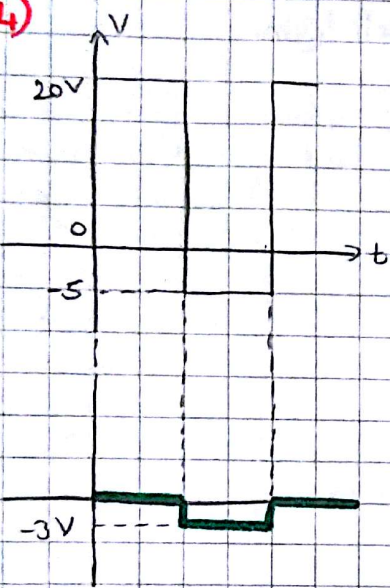
c) İletim durumunda her bir diyotta geçen max akımı hesaplayınız.

$$I_{Dmax} = \frac{V_{Lm}}{R_L} = \frac{168,3}{1k\Omega} = \underline{\underline{168,3 \text{ mA}}}$$

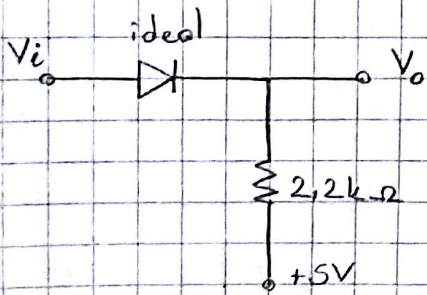
d) Her bir diyot için istenen güç arma değerini bulunuz.

$$P_{max} = V_D \cdot I_D = 0,7 \times I_m = 0,7 \times 168,3 \text{ mA} = \underline{\underline{117,8 \text{ mW}}}$$

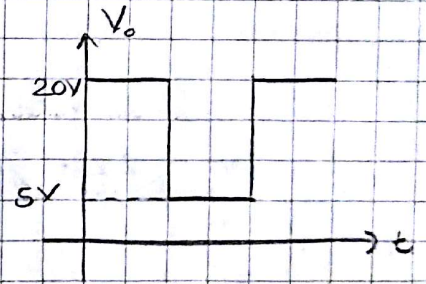
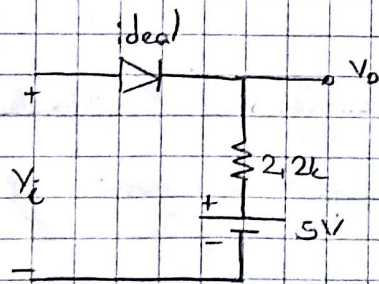
34)



V_o silis grafigini siz.



(b)



35)

V_o çıkışını belirleyin.

