

M R

Ahmed Mahdy



فيزياء	استاتيكا
دوائر كهربية	الكثرونيات
ميكانيكا الانشآت	هيدروليكا

مدرس خصوصي

حضورى

اونلاين

محصل الطالب علي

مقاطع فيديو هات لشرح اقرر بشكل وافي

ملخص للمادة Pdf للمذكرة واطراجة

محاضرات مباشرة علي برنامج زووم

مناقشة الأجزاء الغير مفهومة

تواصل مستمر مع معلم المادة



للتواصل

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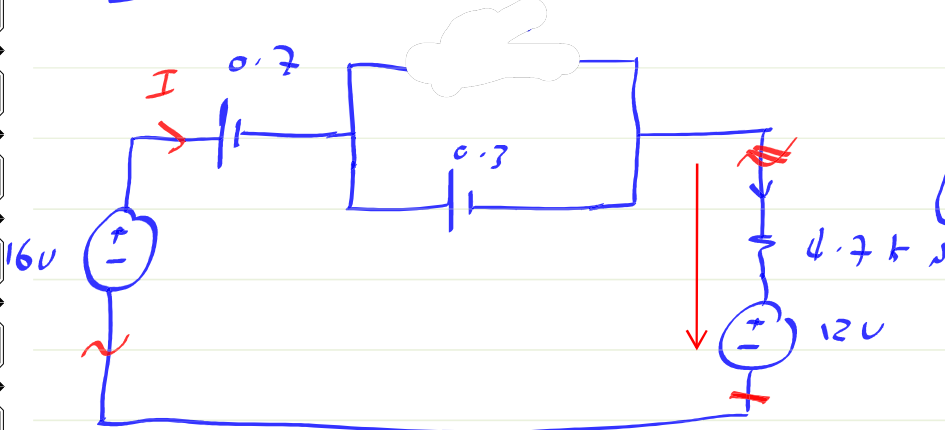
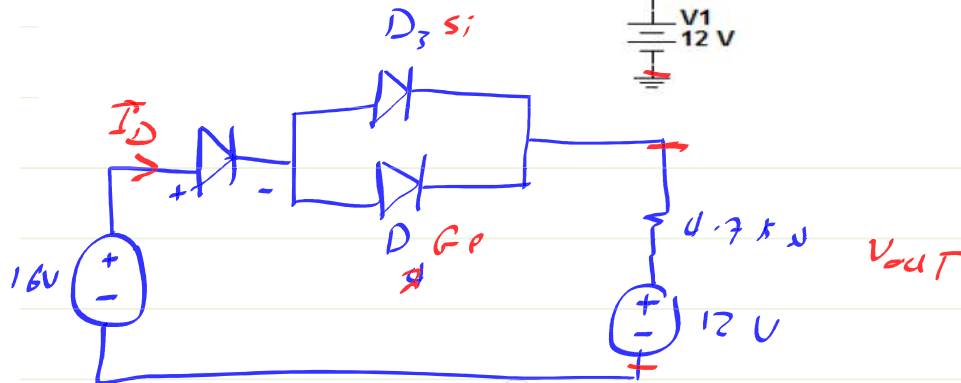
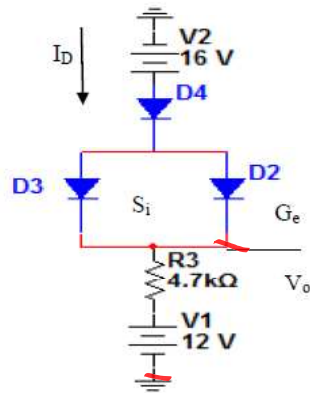
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Quiz (1)

Q1:

(Marks 3)

Determine the level V_o and I_D for the network shown in figure (1)



$$V_o = 15V$$

$$I = \frac{15 - 12}{4.7 \times 10^3}$$

$$-16 + 0.7 + 0.7 + I_D \times 4.7 \times 10^3 + 12 = 0$$

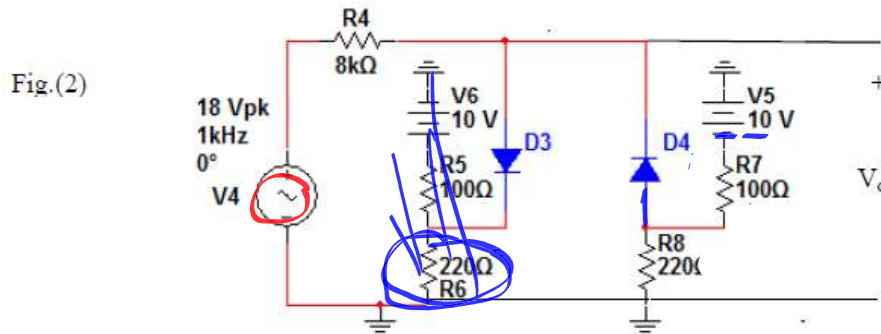
$$I_D = \frac{16 - 0.7 - 0.7 - 12}{4.7 \times 10^3} = 6.383 \times 10^{-4} A$$

$$V_o = 6.383 \times 10^{-4} \times 4.7 \times 10^3 + 12 = 15V$$

Q2:-

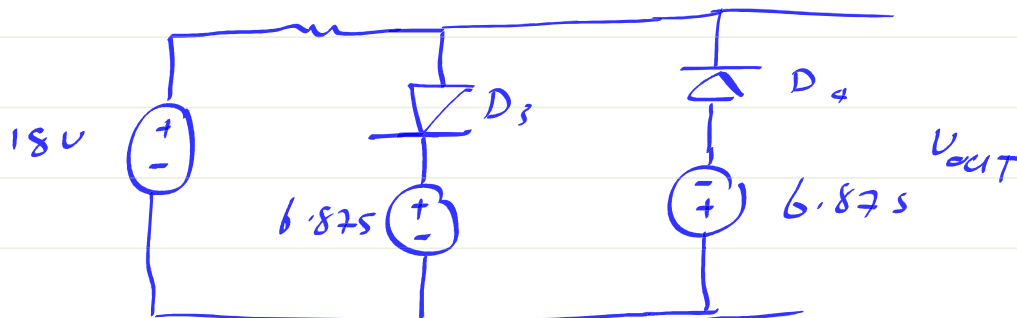
(Marks 3)

Sketch the output waveform for the network in fig.(2). With write solution steps.

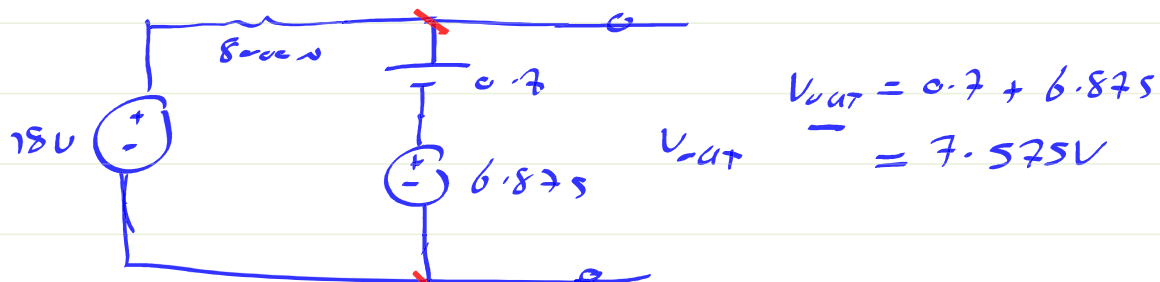


$$V_{R6} = 18 \times \frac{220}{220 + 100} = 6.875 \text{ V}$$

$8000 \times$

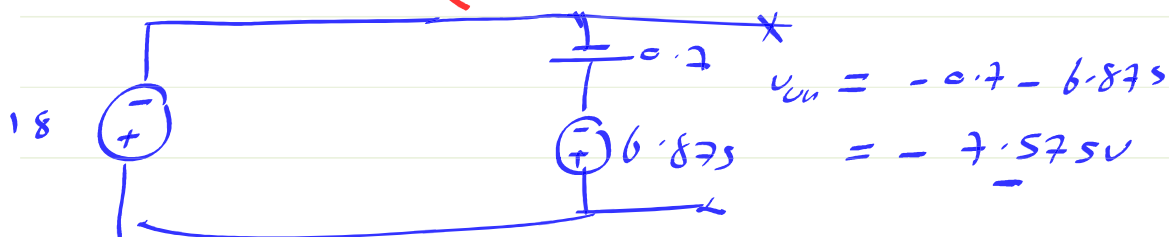


at the +ve cycle of V_{in}



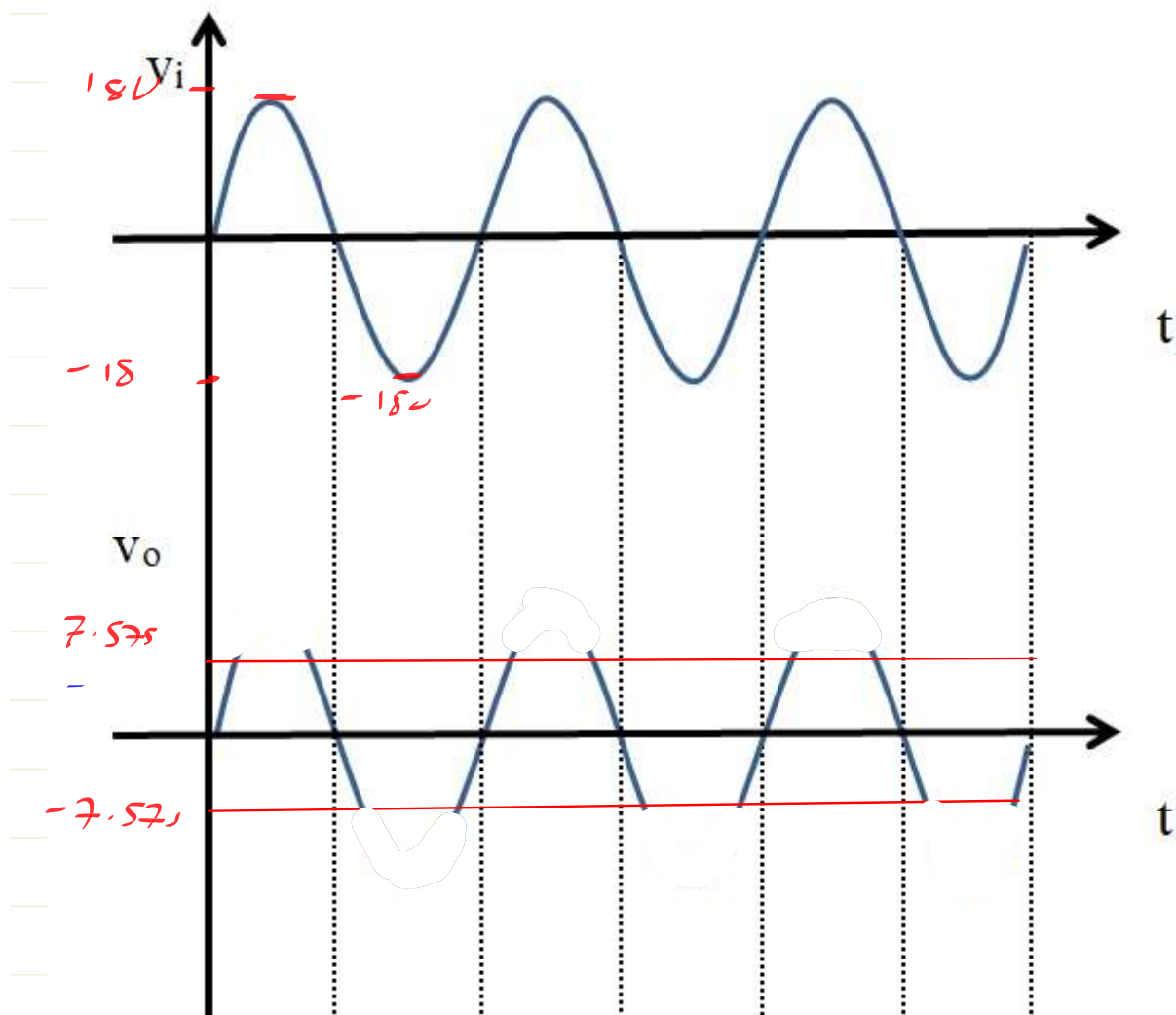
$$V_{out} = 0.7 + 6.875$$

$$= 7.575 \text{ V}$$



$$V_{out} = -0.7 - 6.875$$

$$= -7.575 \text{ V}$$



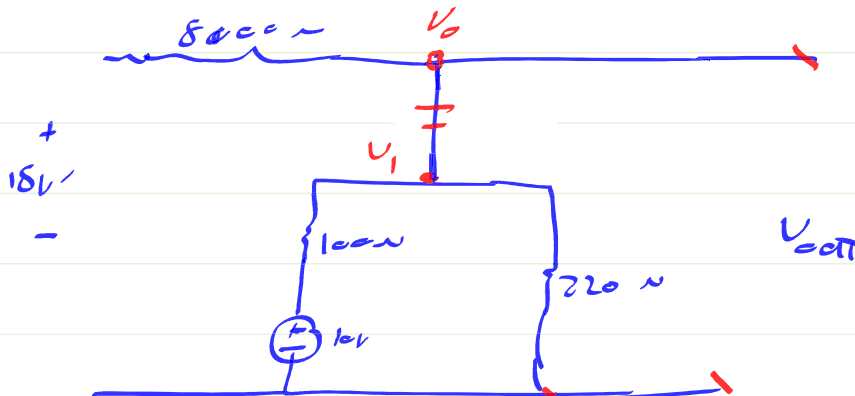
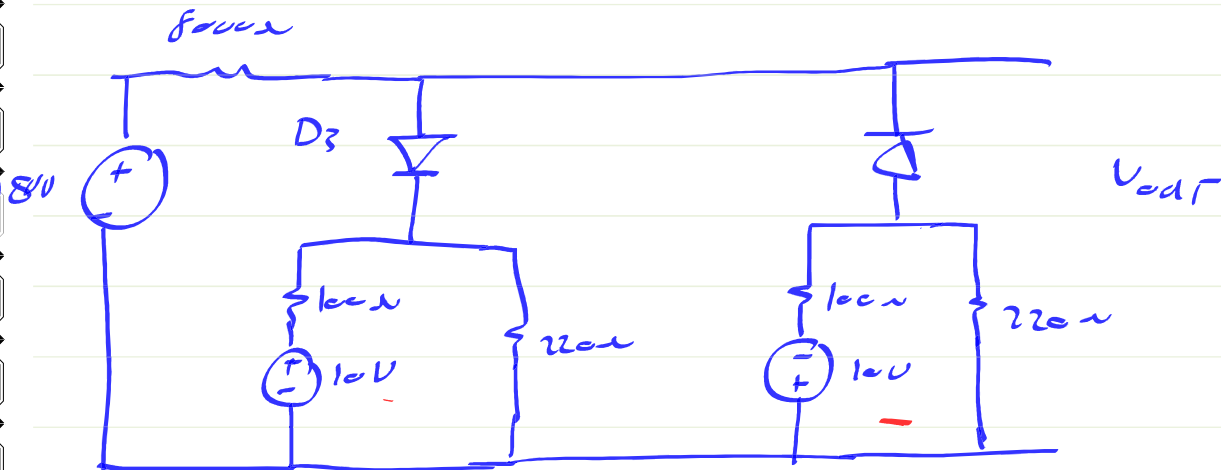
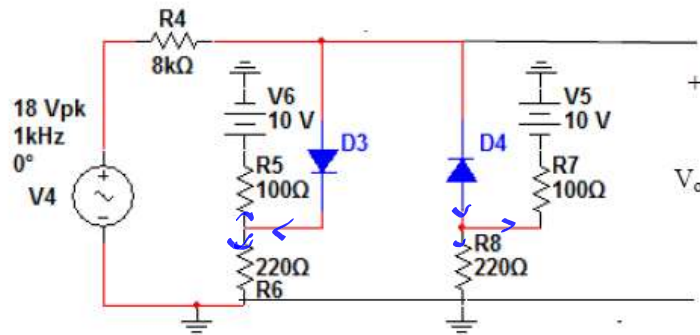
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Q2:-

(Marks 3)

Sketch the output waveform for the network in fig.(2). With write solution steps.

Fig.(2)

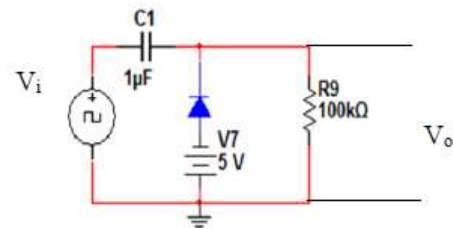
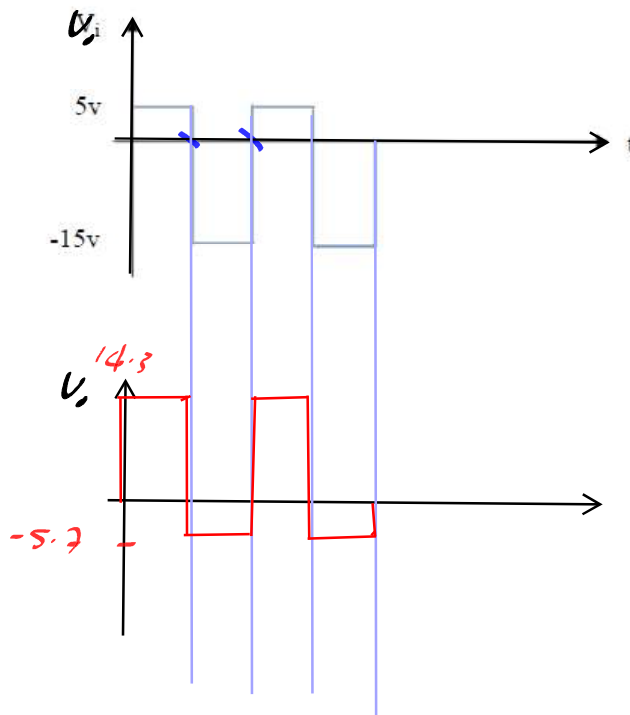


$$\frac{V_o - 18}{8000} + \frac{V_o - 10}{100} + \frac{V_o}{220} = 0$$

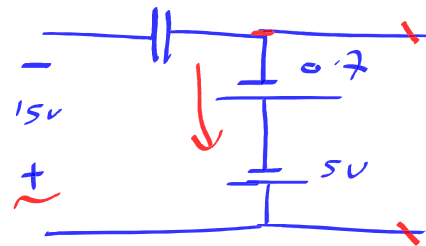
Q3:-

(Marks 4)

Sketch the output waveform for the network of figure (3) with silicon diode for the input indicated. With write solution steps.



- 14.3V at $t = 0$
 $0.5T < T < 1.5T$



$$V_o = -0.7 - 5 = -5.7V$$

$$15 + V_c - 0.7 - 5 = 0$$

$$V_c = -9.3V$$

$1.5T < T < 1.5T$
 $+ 5V$
 $-$
 V_{out}

$$-5 + (-9.3) + V_{out} = 0$$

$$V_{out} = 14.3V$$