Baskent University, Faculty of Engineering
BME 222-02 – Electronics (Spring Semester 2004/2005)
Quiz 1 – March 25, 2005

Student Name_____

Faculty No: _____

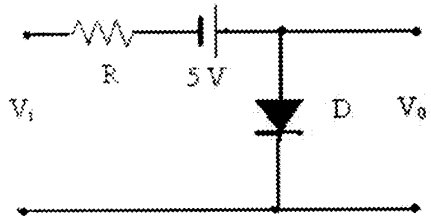


Fig. 1

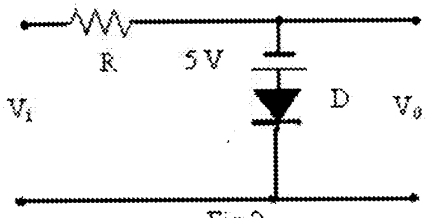


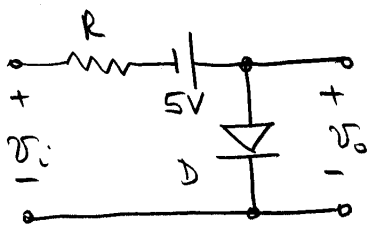
Fig.2

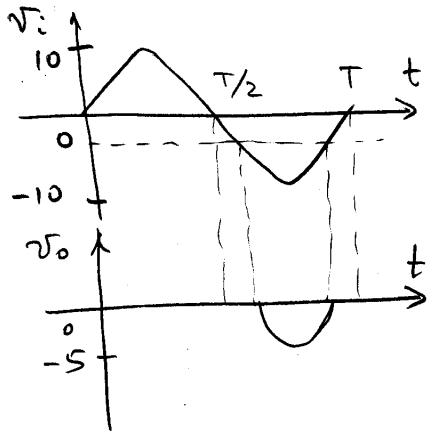
Determine the output V_o for the networks of Fig. 1, 2, if the input V_i is sinusoidal signal with peak-to-peak magnitude of 20 V, and frequency of 1000 Hz. Assume ideal diodes.

5 points.

Good Luck!

Solutions





1. Transition level:

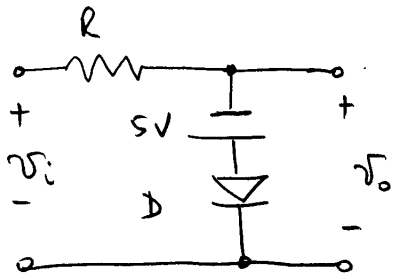
$$-v_i + V_R - 5 + V_D = 0$$

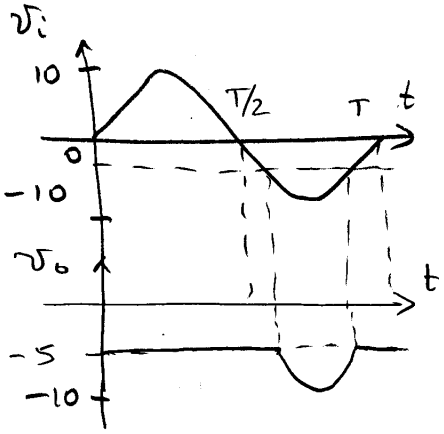
$$V_D = 0 \; ; \; I_D = 0 \; ; \; V_R = 0$$

$$-v_i = 5V \; ; \; v_i = -5V$$

2. $v_i = 10V \; ; \; v_o = 0\,V$

$v_i = -10V \; ; \; v_o = -5\,V$





1. Transition level:

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$$V_R = 0$$

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