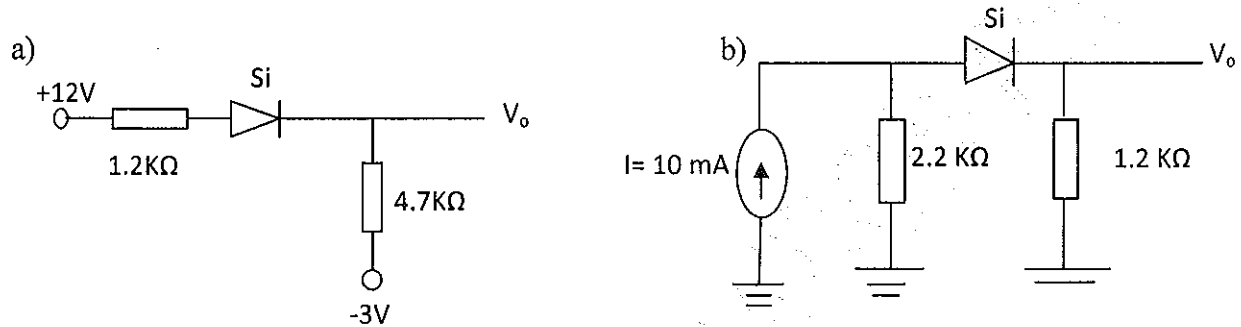


Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

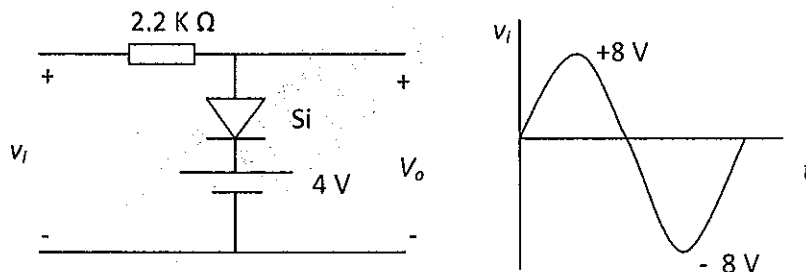
Q1) Determine the level of  $V_o$  for the networks shown in figures. (3)



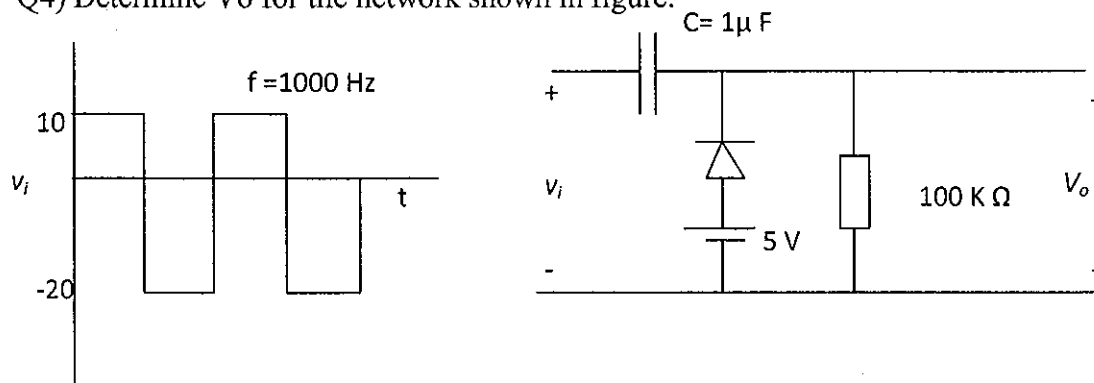
Q2) A full wave bridge rectifier with a 120 V rms sinusoidal input has a load resistor of 1 K  $\Omega$ . (3)

- If Silicon diodes are employed, what is the dc voltage available at the load?
- Determine the required PIV rating of each diode.
- Find the maximum current through each diode during conduction.

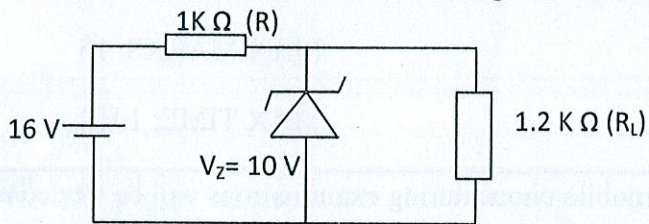
Q3) Determine  $V_o$  for the network shown in figure. (2)



Q4) Determine  $V_o$  for the network shown in figure. (2)



Q5) For the zener diode of following network, determine  $V_L$ ,  $V_R$ ,  $I_Z$  and  $P_Z$ . (2)



Q6) Define the following : (3)

- a) Depletion Layer.
- b) Threshold Voltage.
- c) Conductivity.