

SIR SYED UNIVERSITY OF ENGINEERING AND TECHNOLOGY
 DEPARTMENT OF COMPUTER ENGINEERING
 MID TERM EXAMINATION 2010
 BASIC ELECTRONICS (EE-110)
 2009 BATCH- 3RD SEMESTER

Date: 8th March, 2010

Time: 1 Hour

Instructions:

1. Attempt all questions.
2. All question carry equal marks.
3. Draw neat and clear diagrams where necessary.

Q1a). What is PN-Junction?

Q1b). Determine V_o and I_D for the network of figure 1.

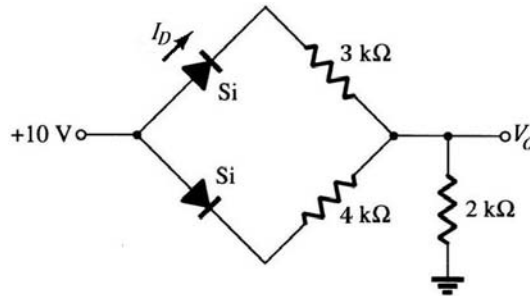


Figure1: Problem 1

Q2a). What is rectification? Define its types.

Q2b). Determine V_o and the required PIV rating of each diode for the configuration of figure 2:

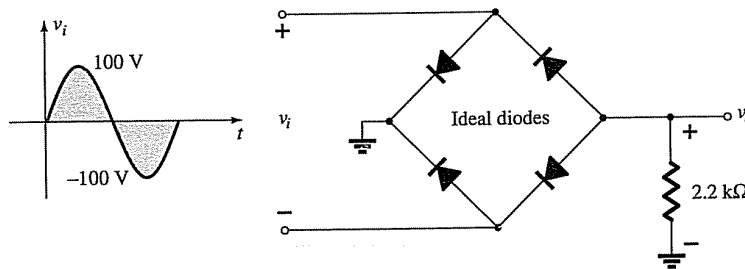


Figure2: Problem 2

Q3a). Differentiate between Simple diode and Zener-diode.

Q3b). Determine V_L , V_R , I_Z and I_R for the network figure 3 if $R_L = 470\Omega$.

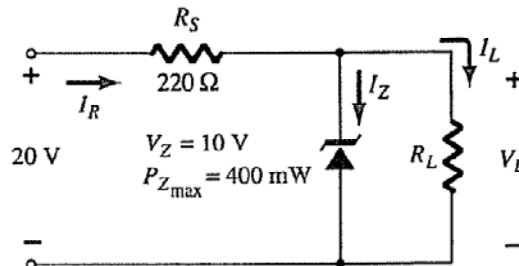


Figure3: Problem 3

Q4). Sketch i_R and v_o for the network of figure 4 for the input shown.

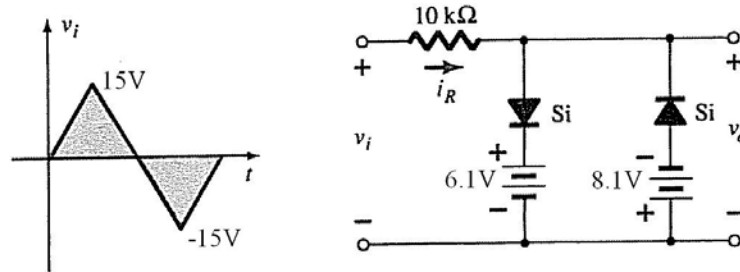


Figure4: Problem 4

Q5). For the network of figure 5:

- Calculate 5τ .
- Compare the 5τ with the period of the input signal.
- Sketch v_o .

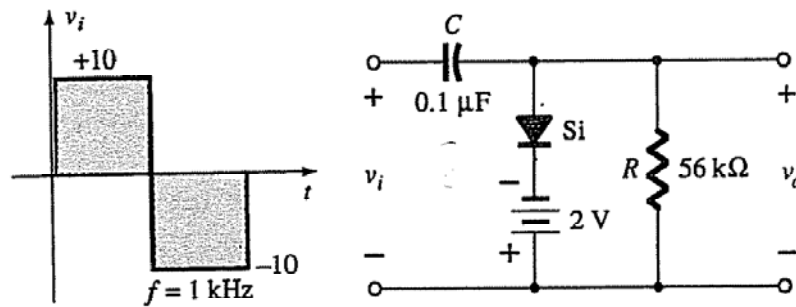


Figure5: Problem 5