

ECE113: Basic Electronics (BE)

Quiz-2

Date: 11-April-2025

Duration: 45 Minutes

Total Points: 14 Marks

[CO4] Q1: [3 Marks] Find the value of voltage V_o (in Figure-1).

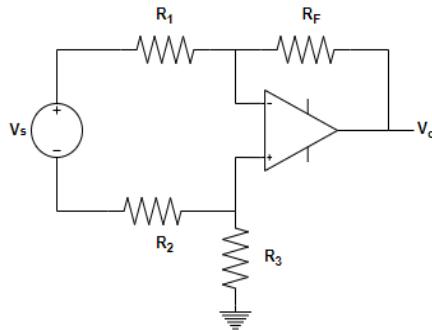


Figure 1

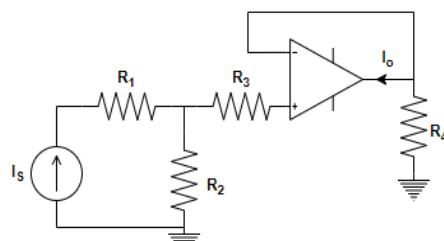


Figure 2

[CO4] Q2: [2 Marks] Find the value of current I_o (in Figure-2).

[CO5] Q3: [2 Marks] Draw the output (V_o) waveform for the given input, $V_i = \sin(\frac{t}{T})$ volts, where all given diode are ideal (in Figure-3).

[CO5] Q4: [3 Marks] The diode in the circuit shown (in Figure-4) has $V_{on} = 0.7 V$ but is ideal otherwise. If $V_i = 5 \sin(wt)$ volts, then find the minimum and maximum value of V_o (in volts).

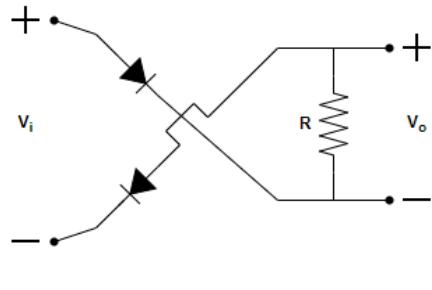


Figure 3

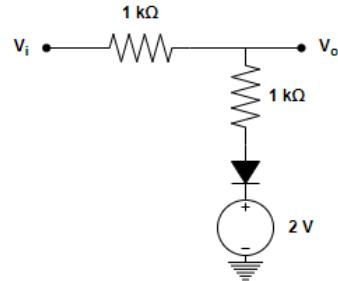


Figure 4

[CO5] Q5: [4 Marks] For the given circuit (in Figure-5), draw the following:

- Output waveform (V_o)
- V_o vs V_i waveform

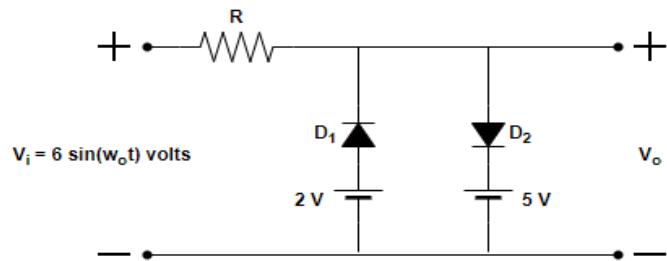


Figure 5