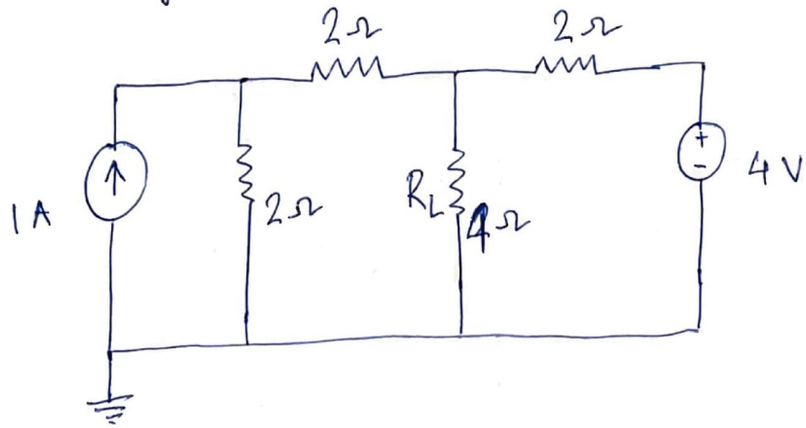
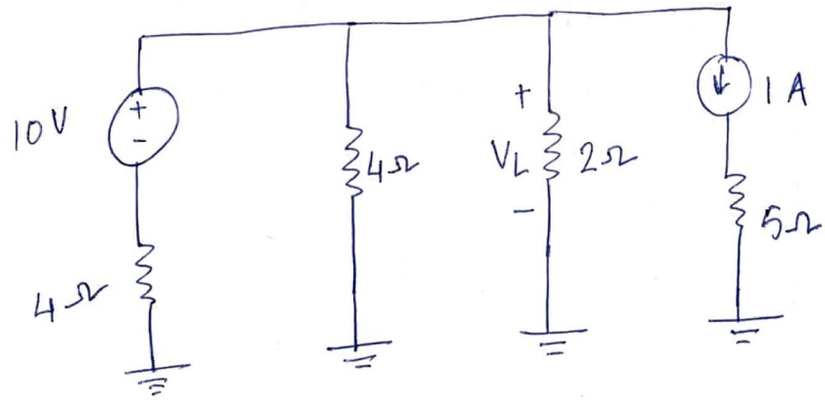
ECE 322 Fall 2021 Quiz 1 Practice

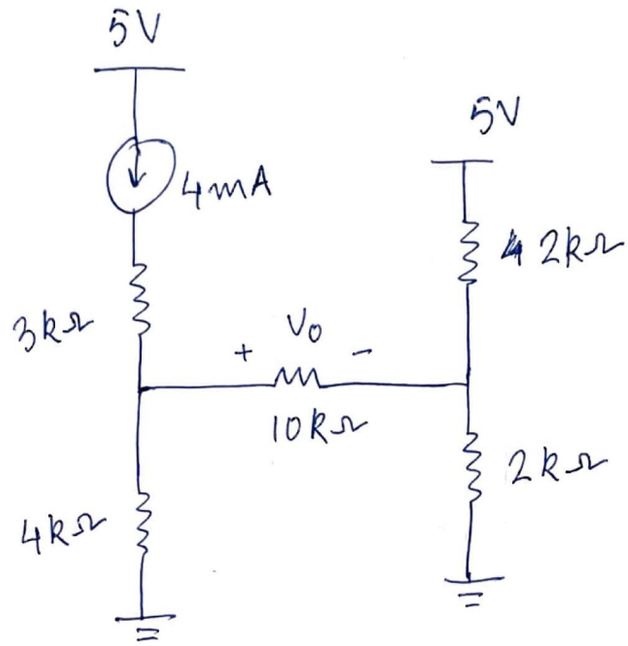
Q1) Using the Thevenin's equivalent circuit, calculate the voltage across the load resistor R_L of 4Ω.



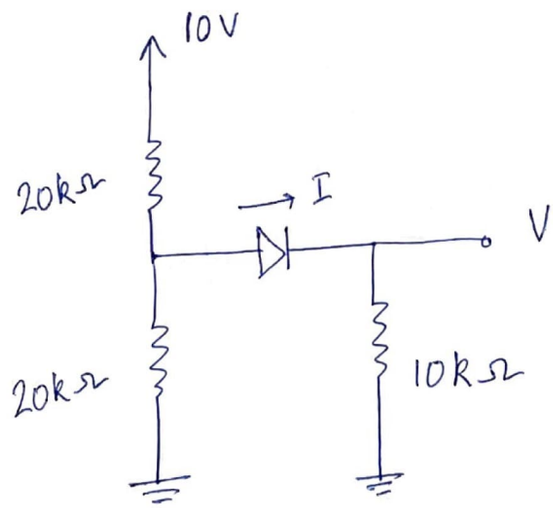
Q2) Using the Thevenin's equivalent circuit, calculate the voltage across the load resistor R_L of 2Ω.



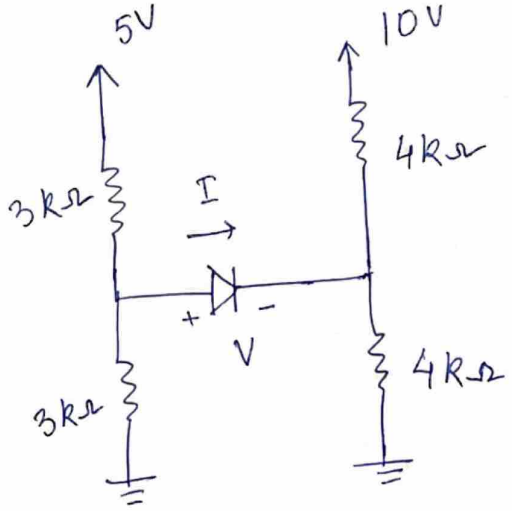
Q3) Using the Thevenin's equivalent circuit, calculate the voltage across the 10kΩ resistor.



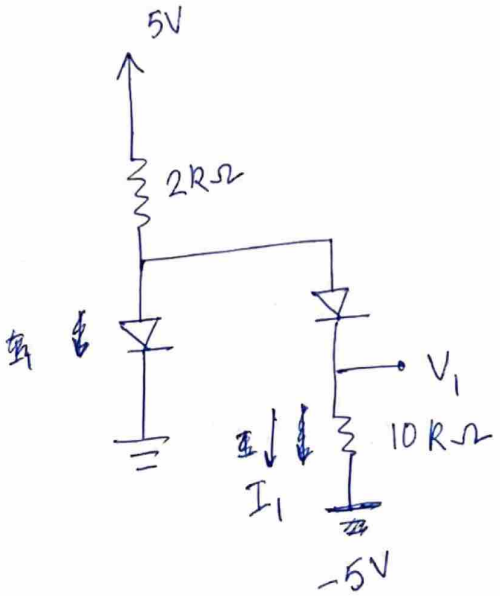
Q4) Assuming the diodes are ideal, use the Thevenin's theorem to simplify the circuit and calculate V & I.



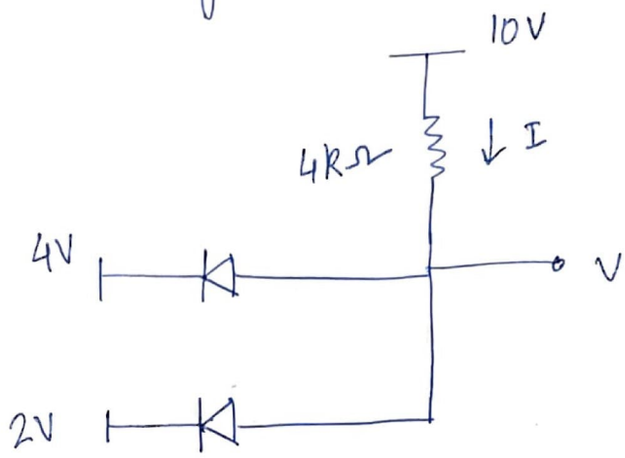
Q 5) Assuming the diode is ideal, apply Thevenin's theorem to simplify the circuit, and calculate V & I.



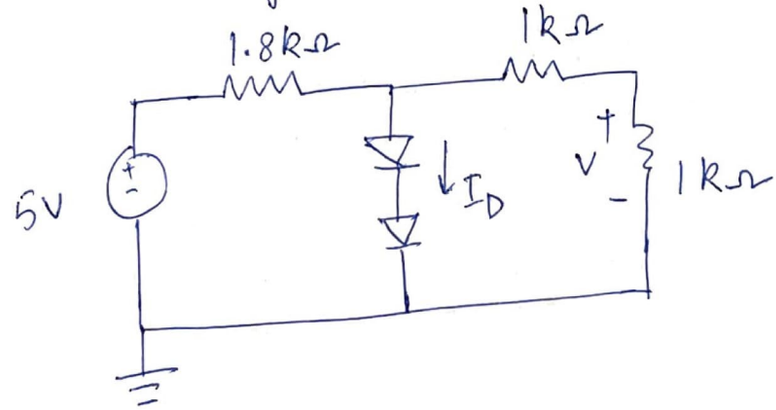
Q 6) Assuming ideal diodes, calculate V_1 & I, in the given circuit.



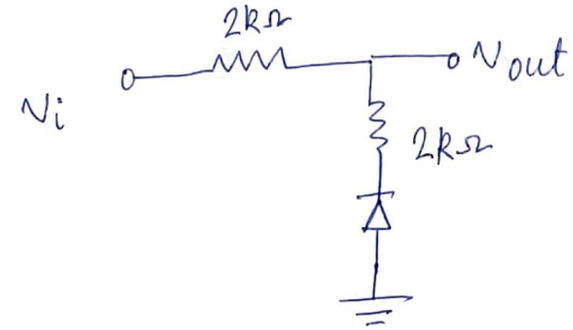
Q7) Assuming ideal diodes, calculate V & I.

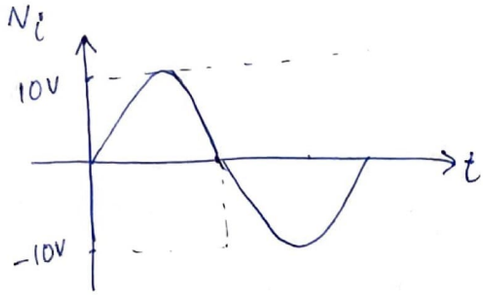


Q8) Assuming real diodes (voltage drop of 0.7V in the forward bias region), calculate I_D and V.

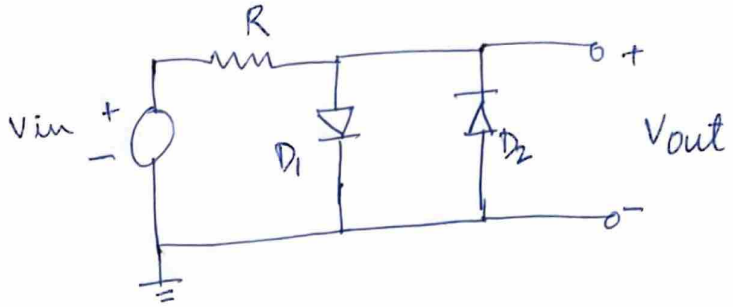


Q9) Assuming ideal diodes, plot V_{out}.

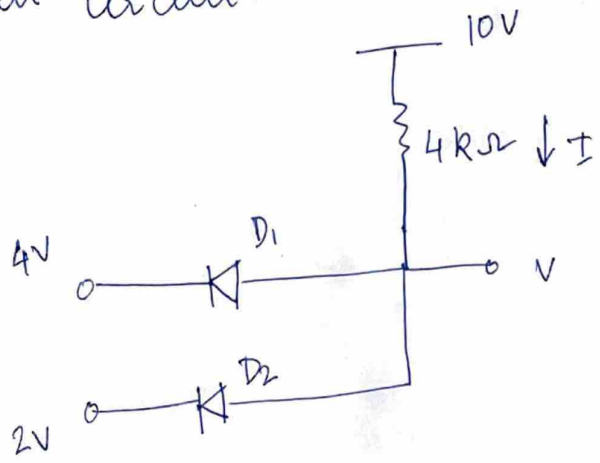




Q10) Assuming real diodes with 0.7V voltage drop in the forward bias region, plot the input output characteristics of the circuit.



Q11) Assuming real diodes, calculate V & I for the given circuit.



Q12) Assuming real diode, calculate V_o & I for the given circuit,