College of Electronic Technology / Tripoli

The final exam of electronic circuit III

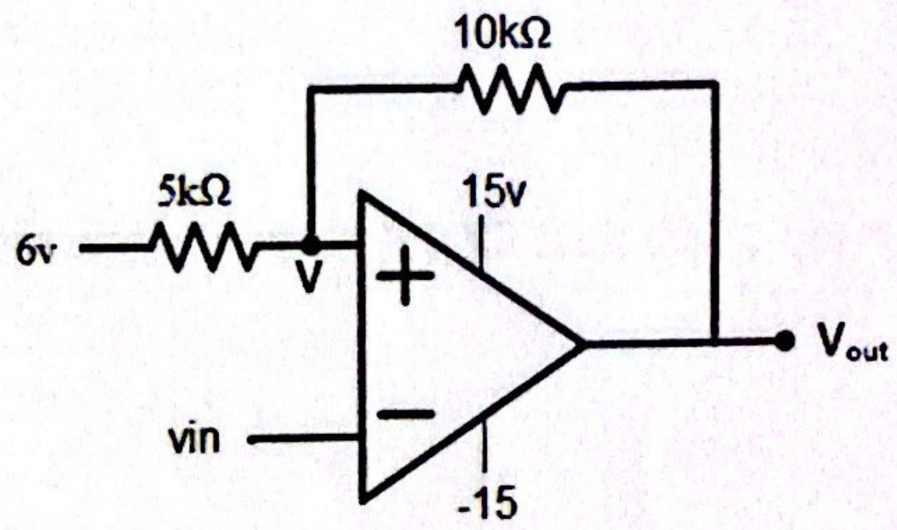
Name:

Date:26/3/2022 Time:2 hour

Q1: Determine the voltage gain, input impedance, and output impedance with feedback for voltage (in put) current(out put) feedback having A= 100, Zin= 10 kΩ , Zo= 20 kΩ for feedback of β= 0.5. (6 Marks)

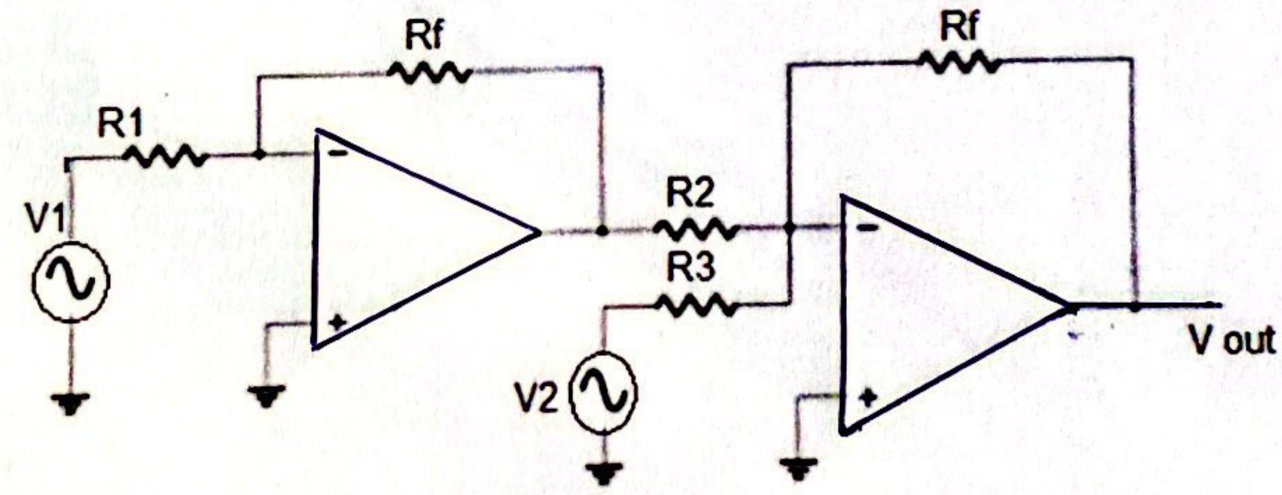
Q2: For the schimtt triger circuit showen:

a) Find V_{HT} , V_{LT} , hysteresis and draw the transfer characteristics
b) drow Vout if Vin = 12 cos wt (10 Marks)

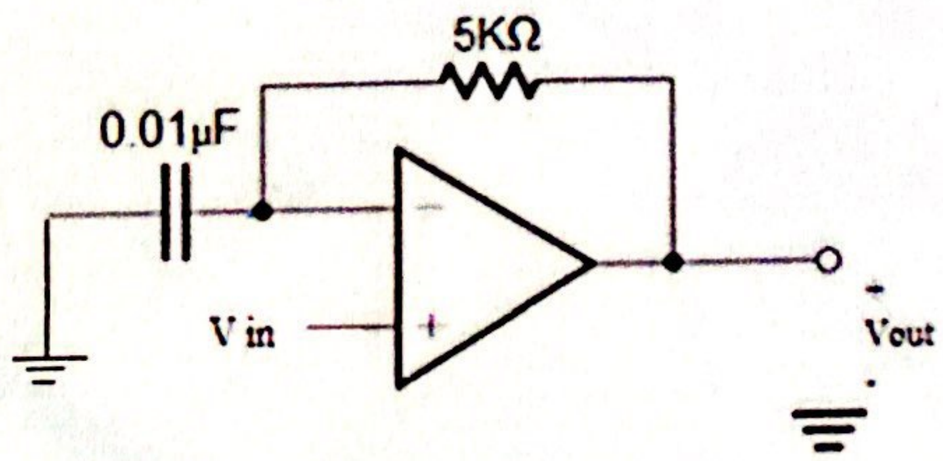


Q3: Calculate the output voltage

a) R1=10kΩ , R2=20kΩ , R3=40kΩ, Rf=20kΩ
V1=0.5sin wt , V2=2cos wt

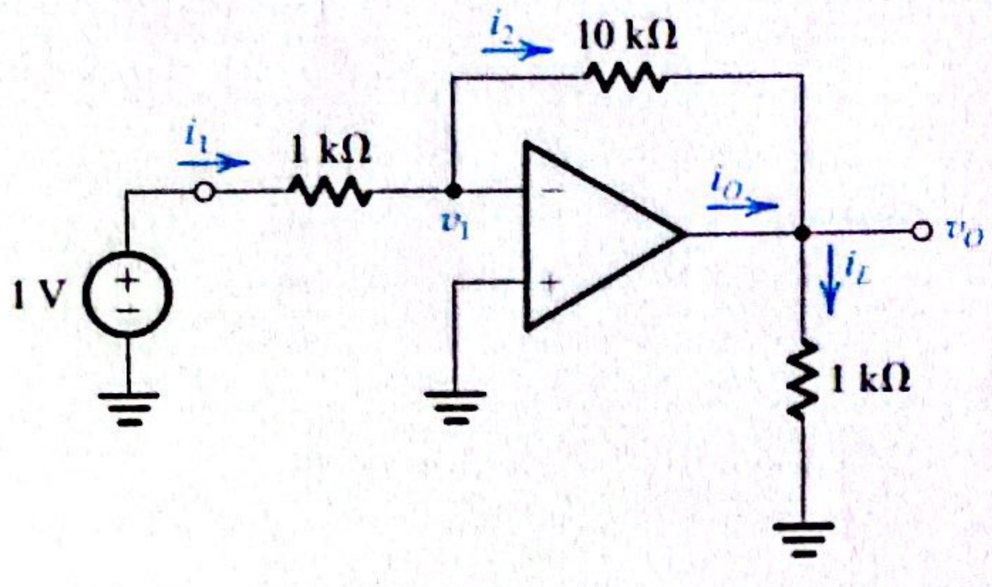


b) V_{in}= 2cos wt ,w=20 rad/sec



(10 marks)

Q4: For the circuit below determine the values of v_1, i_1, i_2, v_O, i_L, and i_O. Also determine the voltage gain ,current gain , and power gain.



(7 Marks)

Q5:Design by using one op-amp circuit with inputs V1,V2 such that V out = 6 V2 -10 V1 , draw the circuit.

(7 Marks)

Good luck