College of Electronic Technology / Tripoli

The final exam of electronic circuit III

Name:.....

Date:30/10/2022 Time:2 hours

Q1: [10Marks]

Design a First order HPF with cutoff frequency f_l = 1kHz, and maximum gain Av= 10, [Using only 10nF capacitors].

a)Draw the circuit.

b)Draw the frequency response.

c)Find vo if vi = 0.2 sin2π10Kt [V].

d)Find vi if vo = 5 sin2π100kt [V].

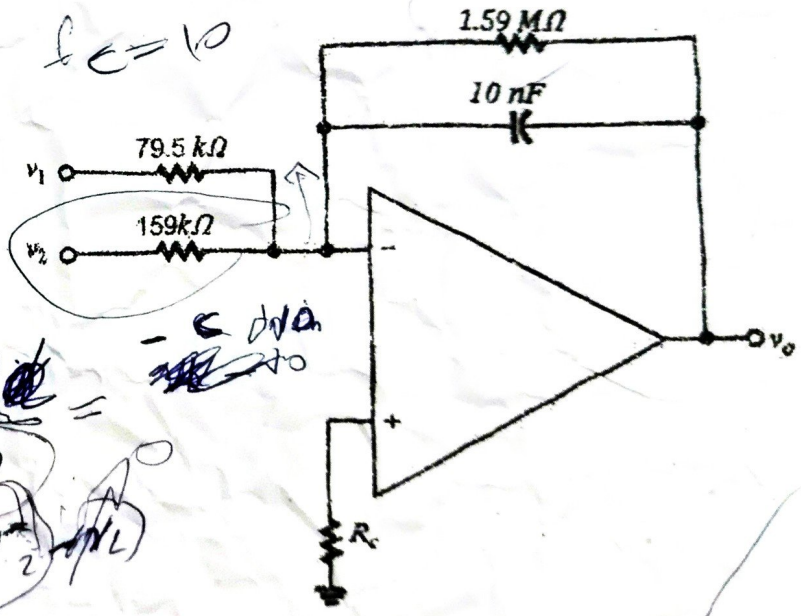
Q2: [10Marks]

1) For the circuit shown find Vo if :

V_1= 50 mv.

& V_2=10 sin 2π $1o^4$ t (v).

2) Find R_c



Q3: [10Marks]

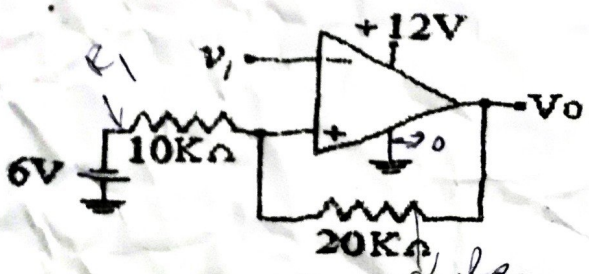
For the circuit shown in figure :

a- Draw the transfer charcteristics.

b- Find the hysteresis h.

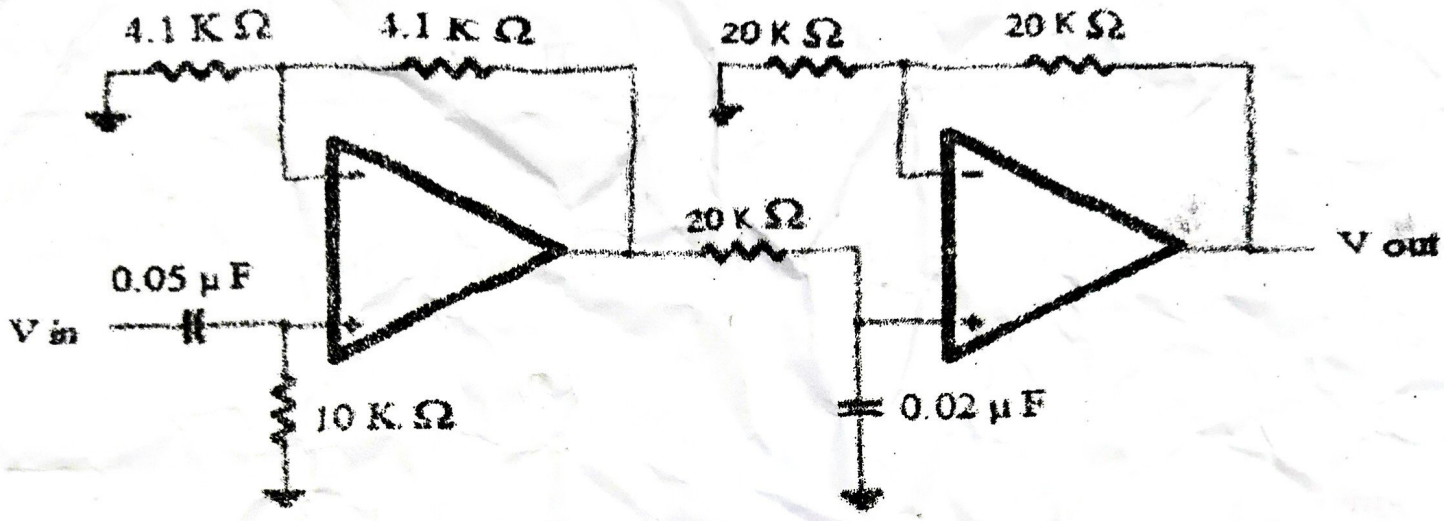
c- Draw vo if i- vi = 5sinωt [V].

ii- vi = - 6cosωt [V].



Q4: [10Marks]

For the circuit shown below :



a) What is the function of this circuit.

b) Draw the frequency response .

c) Find the gain at 31.8 HZ.

31.8 , 3

2.1

-20 dB