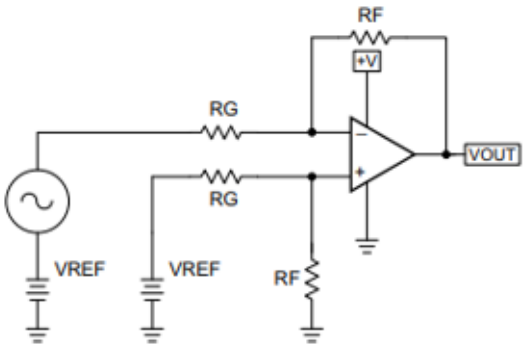
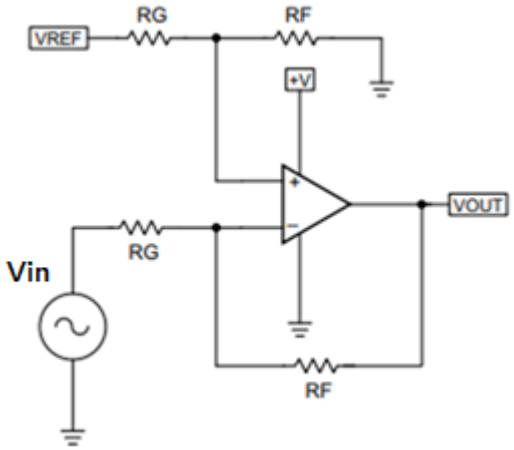
LINEAR INTEGRATED CIRCUITS QUESTION BANK

UNIT-1 part 2

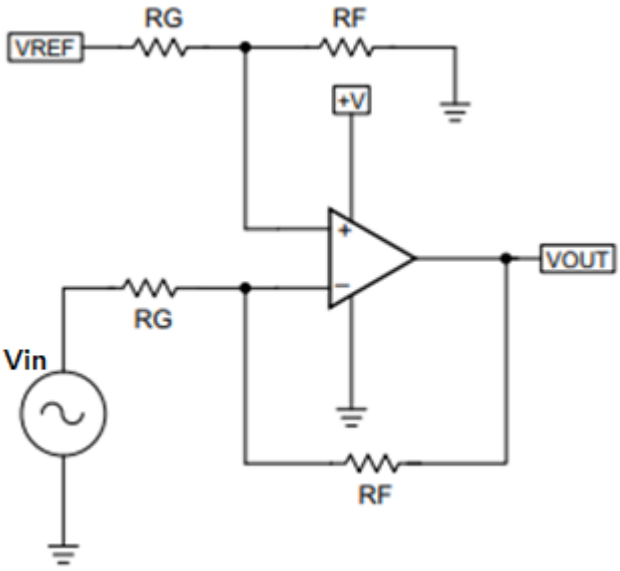
1) List out reasons for single supply op amp device
2) What is DC offset voltage ? How it effects output?
3) What is the role VREF in this circuit ?



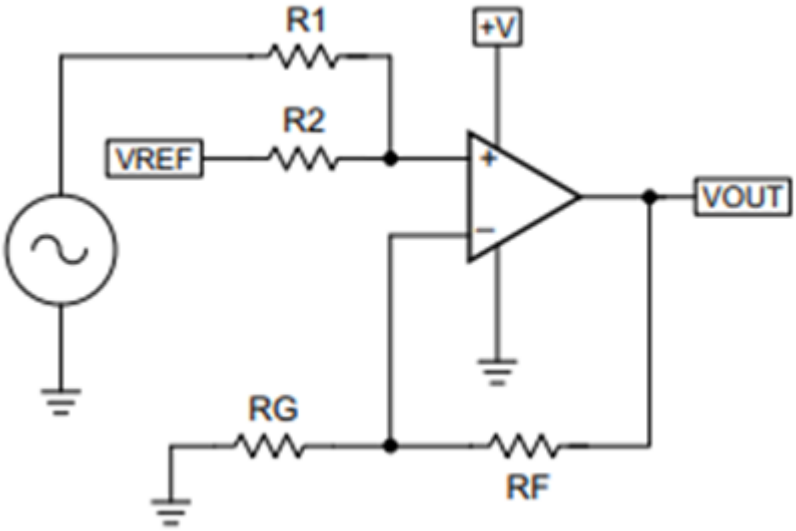
4) Write output voltage equation for the below circuit.



5) What it the value of output voltage when VRFEF = Vout ? Refer above circuit
6) Write output voltage equation for the below circuit for three conditions
    a. When $V_{REF} = V_{IN}$
    b. When $V_{REF} = 0$
    c. When $V_{REF} = 0$ and V_{IN} is positive



7) Why above circuit will not work for positive input voltage?
8) In a typical representation of op amp in simultaneous equation form, what m represents and what b represents?
9) Calculate m and b for amplifier specifications; input range 0.1V to 0.4V and output range 1V to 5V
10) Write equation for m and b for the below circuit.



11) Write circuit diagram of op amp amplifier for following specification; Vout = 1.5V at Vin = 0.2V and Vout = 4.5V at Vin = 0.6V