Sheet 3
Continue: Practical considerations on Op-Amp

1) Assuming the slew-rate of the op-amp is due to charging the compensation capacitor with a constant current. Determine the value of this current for the op-amp to be capable of changing its output from $-V_{CC}$ to V_{CC} in a time of at least 10μsec.

2) Find the gain and output resistance of a non-inverting amplifier with R_1= 1 kΩ and R_2= 39 kΩ, assuming non-ideal Op Amp with A= 80 dB and R_o= 50 Ω.

3) For the shown Op Amp in figure (p3), A= 80 dB and CMRR= 60 dB. Calculate the gain error.

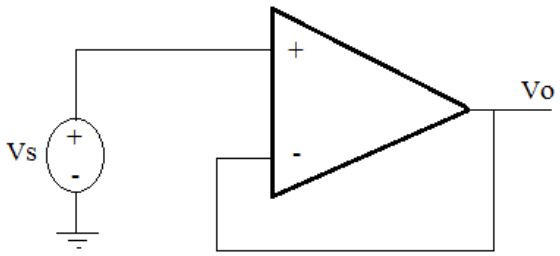

Fig (p3)

4) In figure (p4) assume ideal Op Amp, the resistance nominal value is R= 10 kΩ with 5% tolerance. Find the worst case value of CMRR in dB.

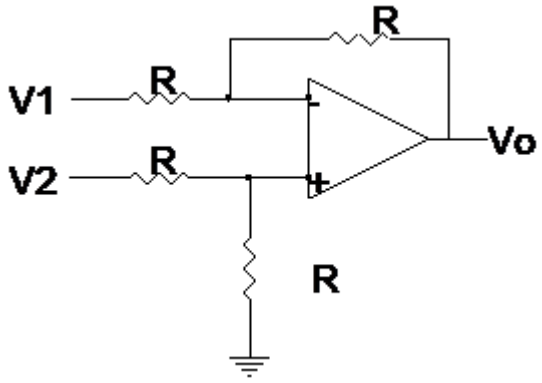

Fig (p4)