

CSE3215

Quiz 3 (Set B2)

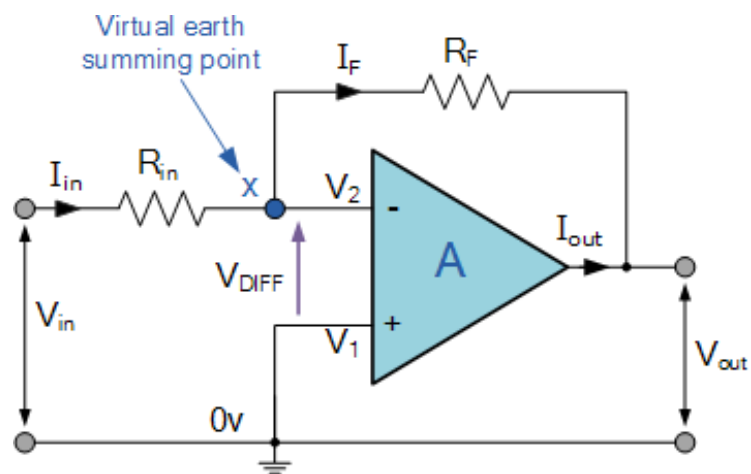
Time: 20 minutes

Marks: 10

1)

a) If your system is 3.3V and your 10-bit ADC is reporting 512, what is the analog voltage measured? (2)

b) (3)



For the above figure, let  $R_F = 350 \text{ k}\Omega$ ,  $R_{in} = 20 \text{ k}\Omega$  and  $V_{in} = -0.75\text{V}$ . Calculate  $I$ , the voltage across  $R_F$  and  $V_o$ .

2)

a) A DAC is showing 4.2V output for the input code 101010. Calculate the LSB and Reference voltage if it operates within 2V to 12V. (2)

b) What is Virtual Ground of an Inverting Amplifier? Explain with proof. (3)