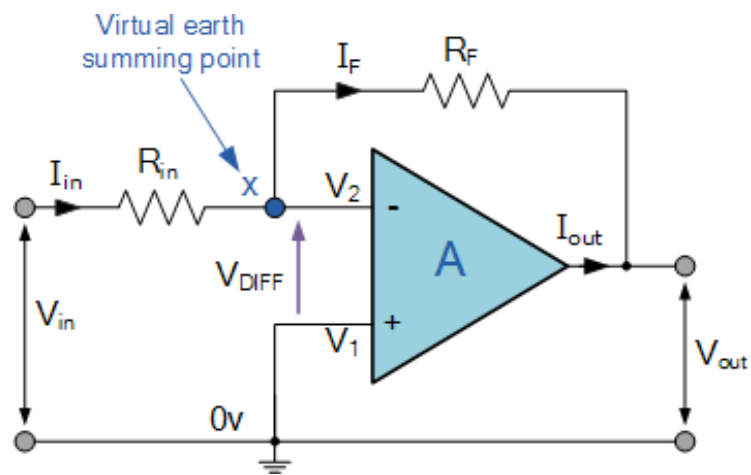1)

a) Derive the formula $\dfrac{Vout}{Vin} = -\dfrac{Rf}{Rin}$ of an inverting amplifier. (2)

b) (3)

For the above figure, let R_F = 200 kΩ, R_{in} = 10 kΩ and V_{in} = 2V. Calculate I, A_v, 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) Describe the process of Data Acquisition System. (3)