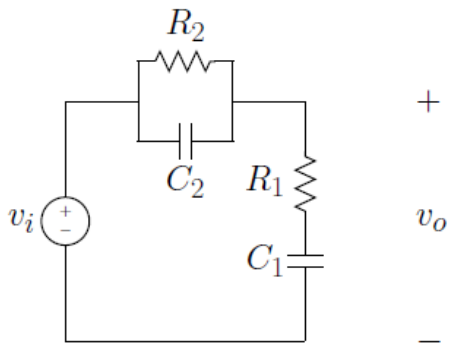
EENG307: Intro to Feedback Control

Fall 2020

Homework Assignment #3

Quiz #5

Quiz Question Monday: Find the transfer function from input v_i to output v_0 for the following circuit



(a) $\frac{V_o(s)}{V_i(s)} = \frac{R_1C_1C_2R_2s^2+(C_2R_2+R_1C_1)s-1}{R_1C_1C_2R_2s^2+(R_1C_1+C_2R_2+R_2C_1)s+1}$

(b) $\frac{V_o(s)}{V_i(s)} = \frac{R_1C_1C_2R_2s^2+(C_2R_2+R_1C_1)s+1}{R_1C_1C_2R_2s^2+(R_1C_1+C_2R_2+R_2C_1)s-1}$

(c) $\frac{V_o(s)}{V_i(s)} = \frac{R_1C_1C_2R_2s^2+(C_2R_2+R_1C_1)s-1}{R_1C_1C_2R_2s^2+(R_1C_1+C_2R_2+R_2C_1)s-1}$

(d) $\frac{V_o(s)}{V_i(s)} = \frac{R_1C_1C_2R_2s^2+(C_2R_2+R_1C_1)s+1}{R_1C_1C_2R_2s^2+(R_1C_1+C_2R_2+R_2C_1)s+1}$