Assignment (2)

1- For the block diagrams shown in figures (1-a,b), drive the transfer functions relating C(s) and R(s).

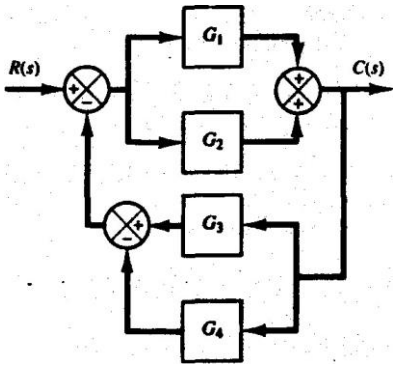


Figure (1-a)

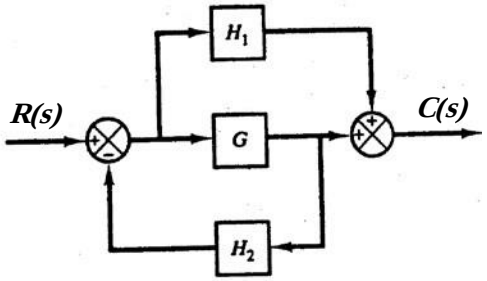


Figure (1-b)

2- For the block diagram shown in figure (2), drive the transfer function relating U(s) and Y(s).

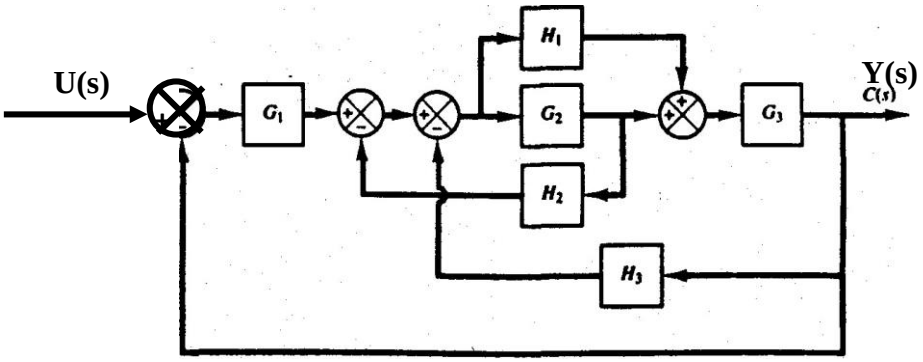


Figure (2)

3- For the shown block diagram in figure (3), drive the transfer function relating Y(s) and R(s).

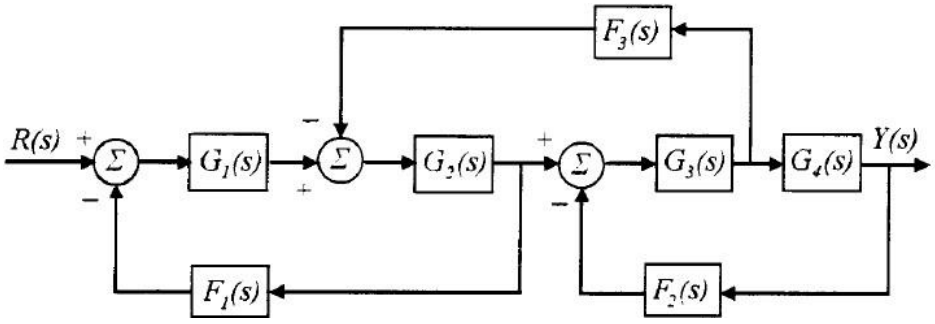
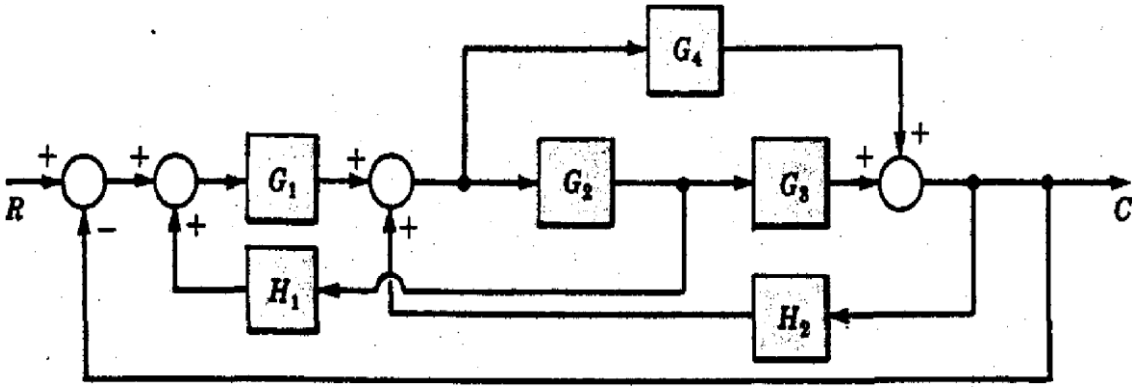
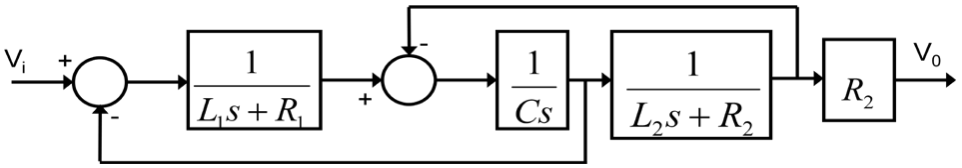


Figure (3)

4- For the block diagram shown in figure (4), drive the transfer function relating C(s) and R(s).

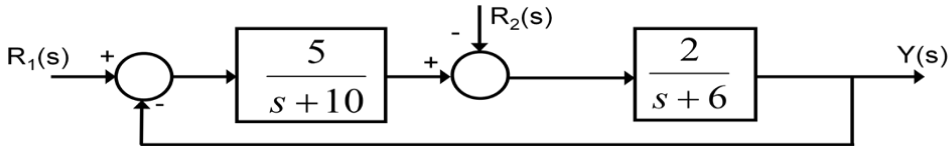


5- For the block diagram shown in the following figure, drive the transfer function relating $V_o(s)$ and $V_i(s)$.



6- For the multiple-input, multiple-output block diagram shown in figure (6) derive the transfer function when;

a) Find the transfer function $Y_2(s)/R_1(s)$, $R_2(s)= 0$
b) Find the transfer function $Y_2(s)/ R_2(s)$, $R_1(s) = 0$
c) Express the output Y(s) in terms of the two inputs $R_1(s)$ and $R_2(s)$



7- For the following block diagram shown in figure

I) Find the transfer function C(s)/R(s), N(s) = 0
II) Find the transfer function C(s)/N(s), R(s) = 0
III) Express the output C(s) in terms of the two inputs R(s) and N(s)