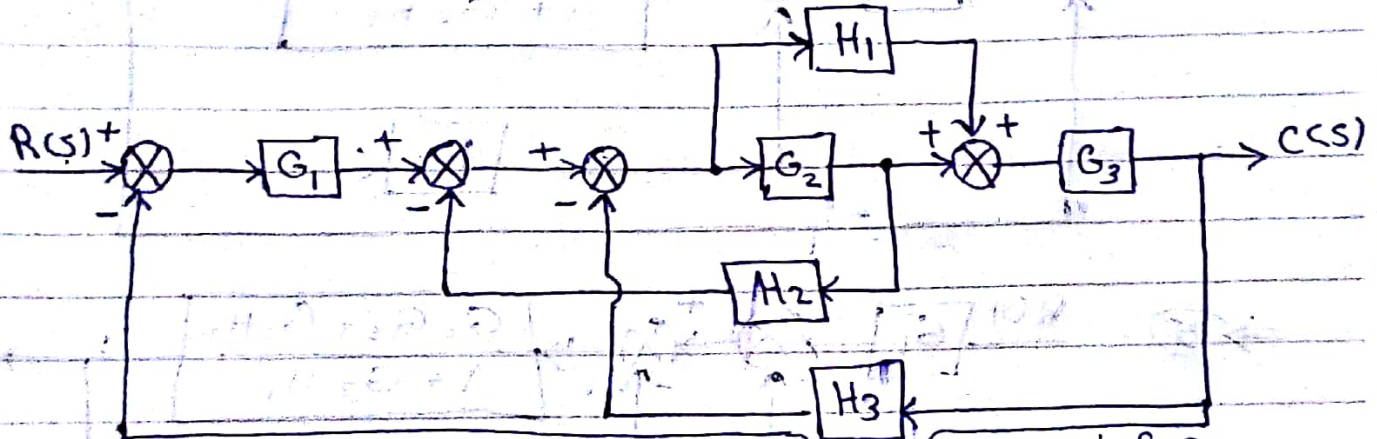
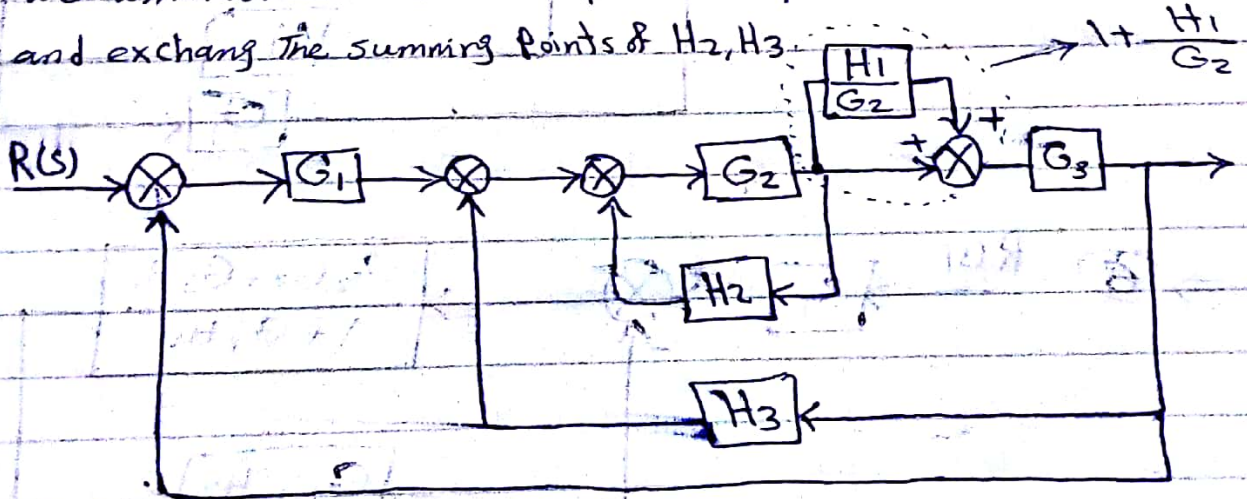


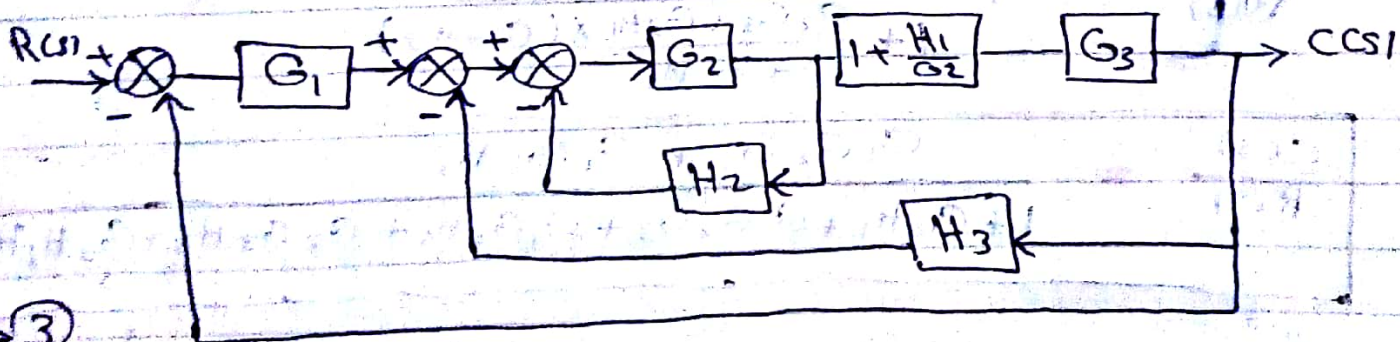
Find, CCS) / RCS)



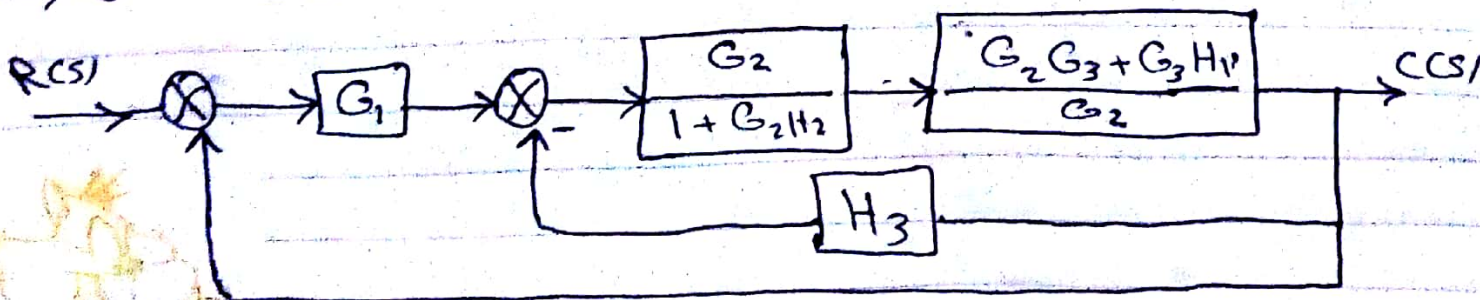
⇒ 1) we will move the branch point of H_1 to the right of G_2 and exchange the summing points of H_2, H_3 .

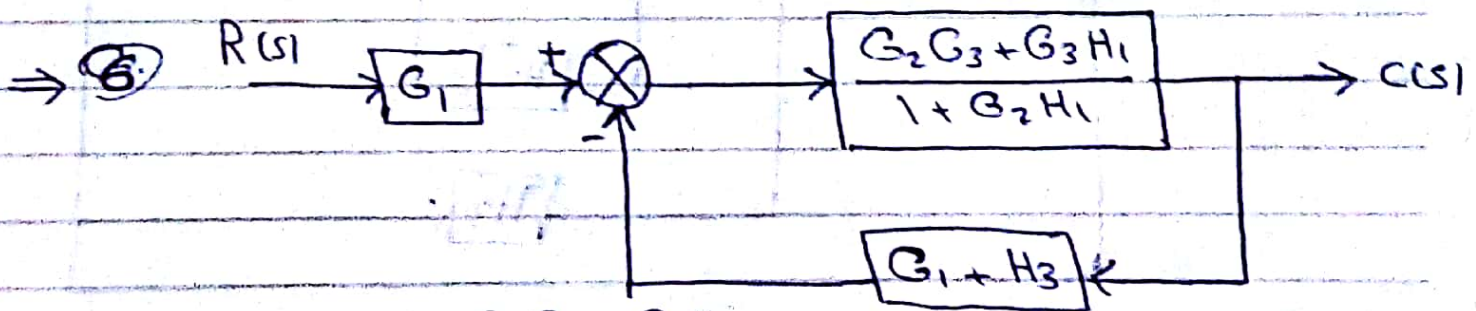
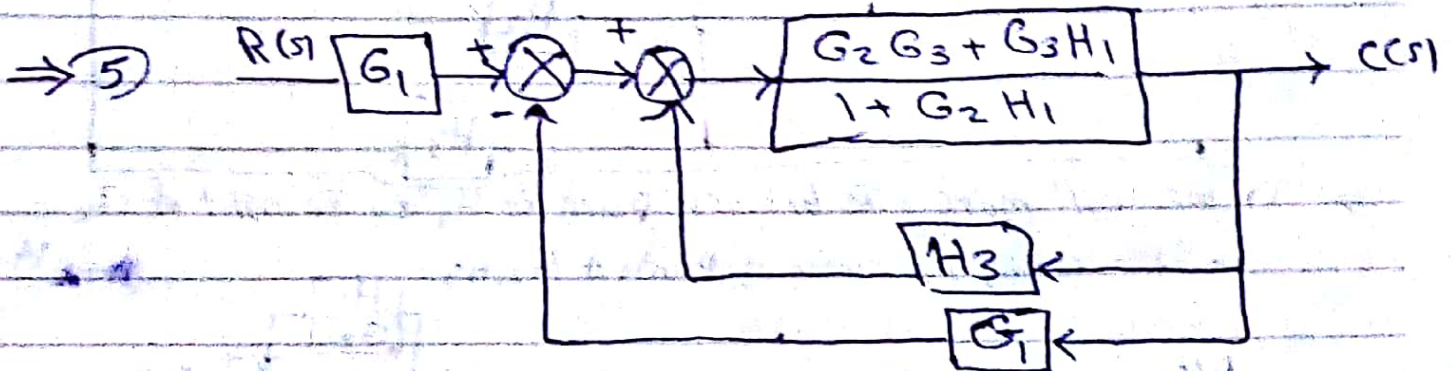
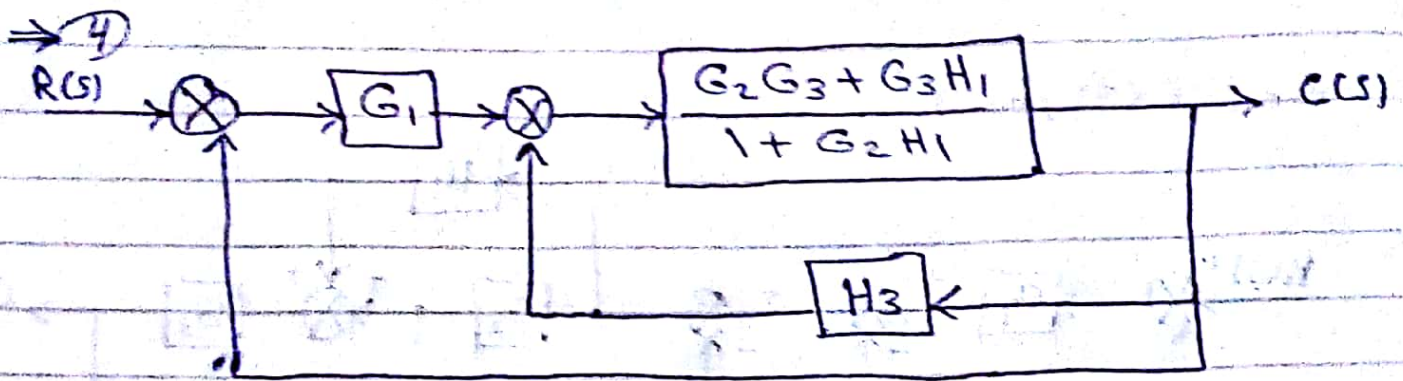


⇒ 2)



⇒ 3)





$$\frac{C(s)}{R(s)} = G_1 \cdot \frac{G_2 G_3 + G_3 H_1}{1 + G_2 H_1} \cdot \frac{1}{1 + \frac{G_2 G_3 + G_3 H_1}{1 + G_2 H_1} (G_1 + H_3)}$$

$$\frac{C(s)}{R(s)} = \frac{G_1 G_2 G_3 + G_1 G_3 H_1}{1 + G_2 H_1 + G_1 G_2 G_3 + G_1 G_3 H_1 + G_2 G_3 H_3 + G_3 H_1 H_3}$$