

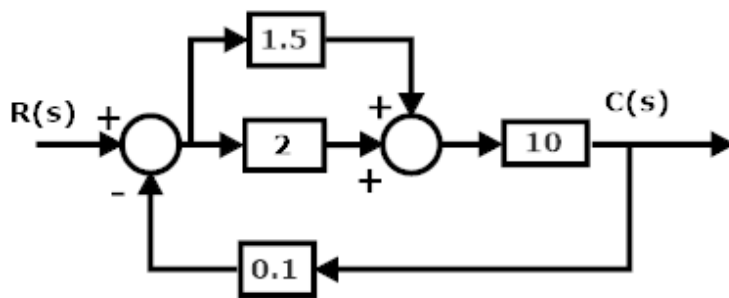
Automatic Control Systems

Course code: ECE 251

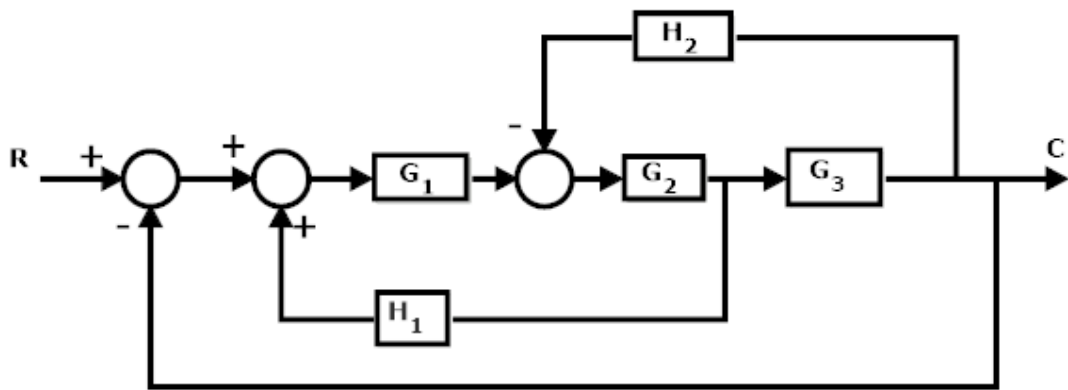
Sheet 05 — Block diagram reduction – cont.

1. Simplify the block diagram shown in Figure and Obtain the closed loop transfer function $C(s)/R(s)$

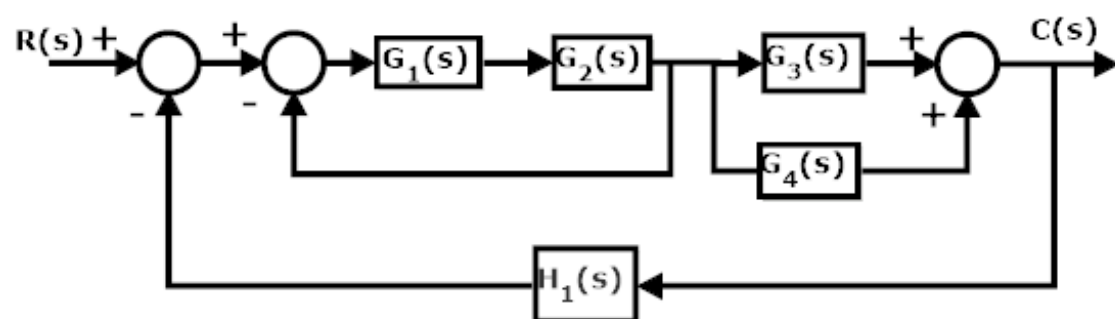
(a)

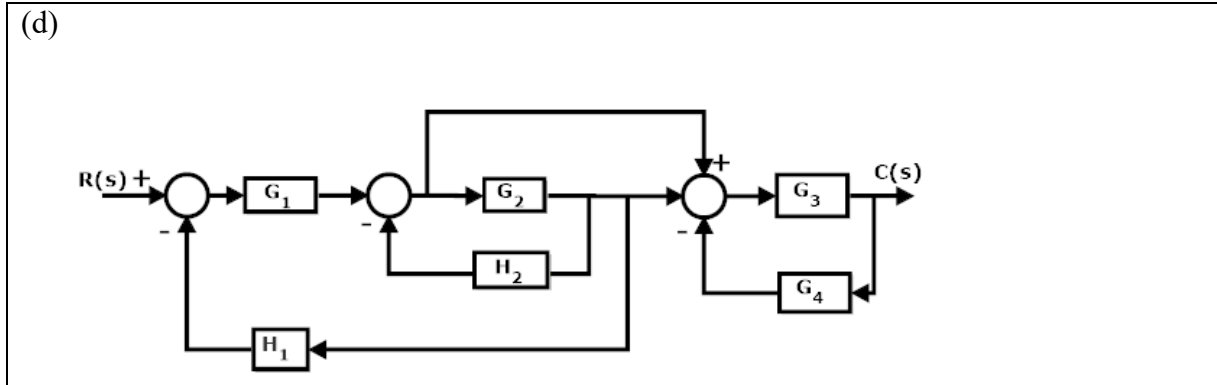


(b)

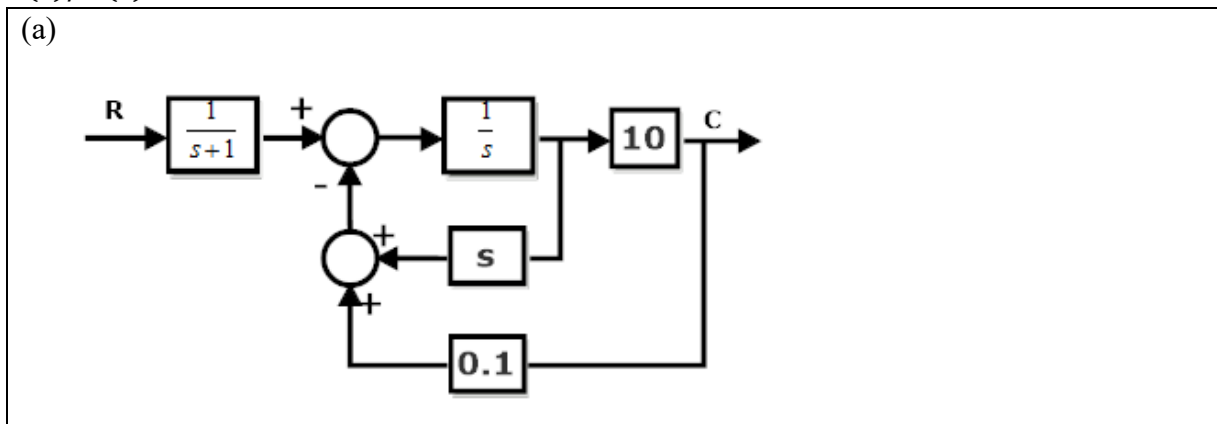


(c)

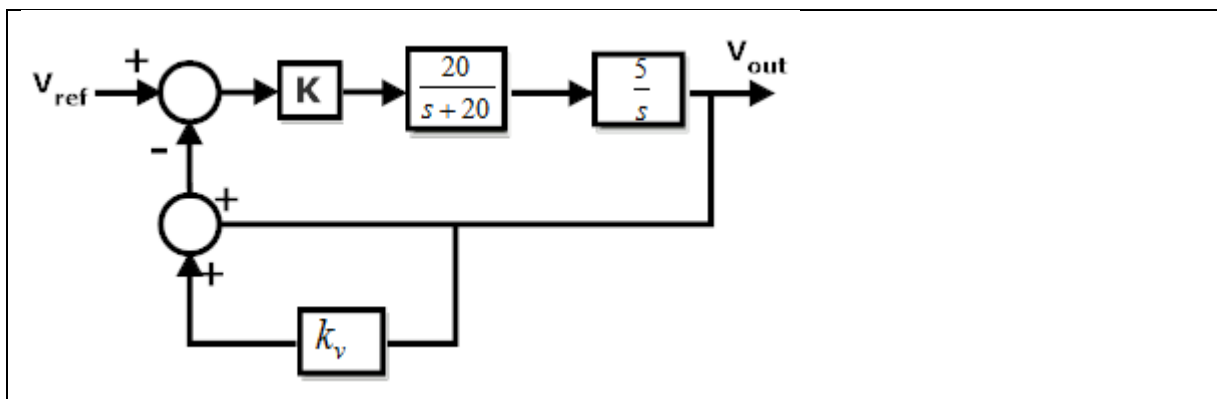




2. Simplify the block diagram shown in Figure and Obtain the closed loop transfer function $C(s)/R(s)$



3. Figure below shows a typical control system using velocity feedback. Develop the closed-loop transfer function.



4. The block diagram representation of an aircraft elevator system is shown below. Obtain the closed-loop transfer function

