Student ID:

## ME334 Homework 3

## Question 3.1

- a. <u>Reduce</u> the block diagram shown in Figure 1 to a single transfer function.
  (Show all the steps in the block diagram reduction, including the movement of blocks, pickoff, or summing points)
- b. **<u>Convert</u>** the block diagram in **Figure 1** into a signal-flow graph.
- c. <u>Use</u> Mason's rule to <u>find</u> the transfer function of the signal-flow graph in your answer of Q3.1.b.

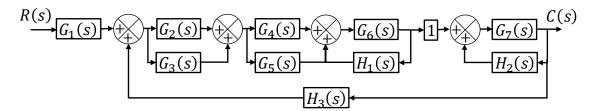


Figure 1. Block diagram