

Time: One (01) Hour

Total 03 Questions
 Answer two (02) questions

1.

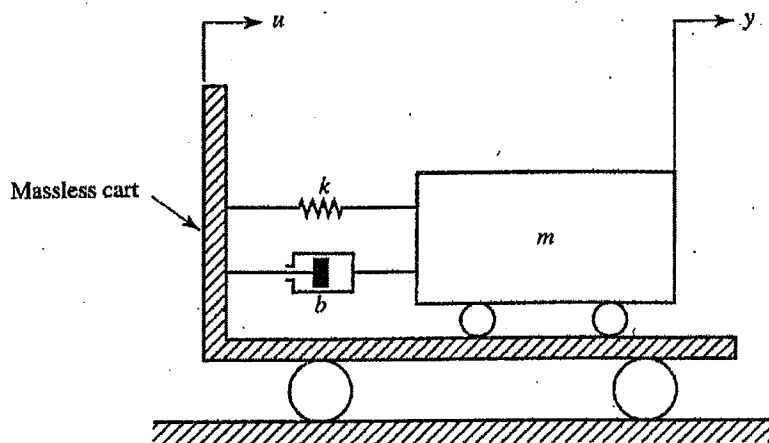


Fig Q1

Consider the Fig Q1 above. u is the input and y is the output.

- Write the equations of motion.
- Derive the transfer function for the system.
- Represent it in the state space method.

(100 marks)

2.

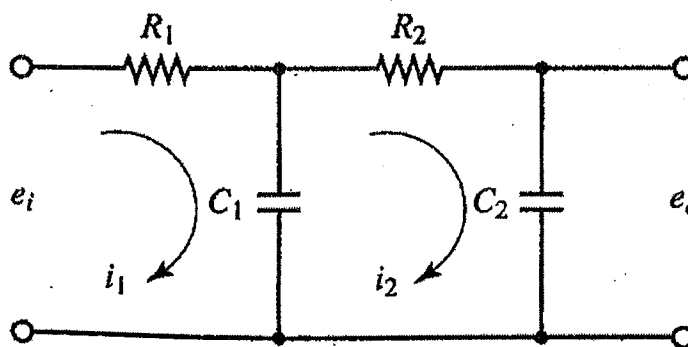


Fig Q2

Consider the Fig Q2 above. e_i is the input and e_o is the output.

- Write equations for the system.
- Derive the transfer function for the system.
- Represent it in the state space method.

(100 marks)

3.

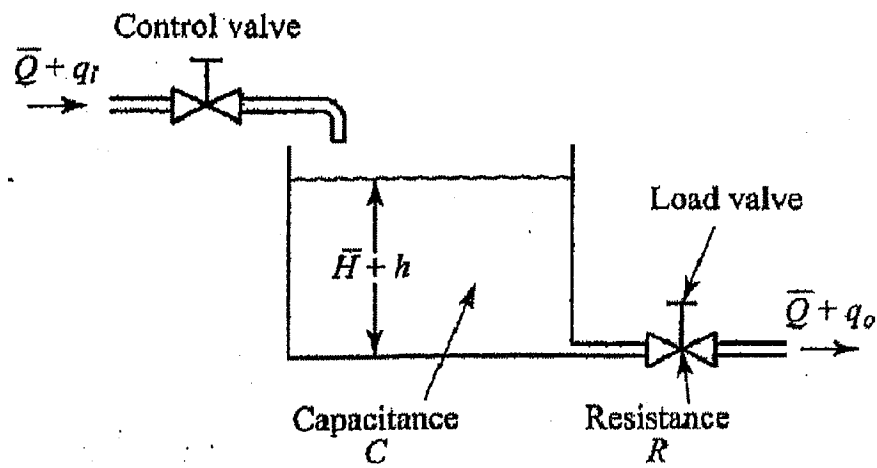


Fig Q3

Consider the Fig Q3 above. q_i is the input and q_o is the output.

- Write equations for the system.
- Derive the transfer function for the system.
- Represent it in the state space method.

(100 marks)