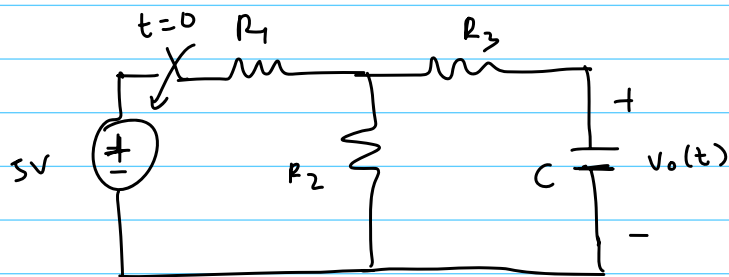


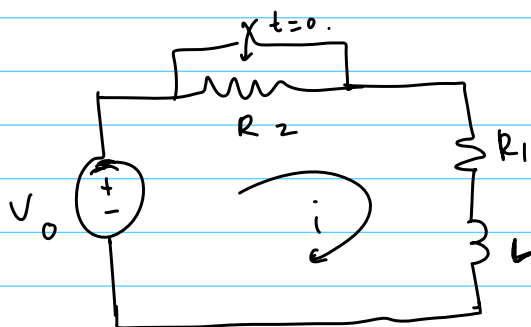
Q1.



$$V_o(t=0^-) = 1V.$$

Switch is closed at  $t=0$ . Write the differential equation to find  $V_o(t)$ . What is the time constant of the circuit?

Q2.



Switch is closed at  $t=0$ .

Assume that the circuit attained steady state previously. Find the current in the circuit as a func<sup>n</sup> of time.