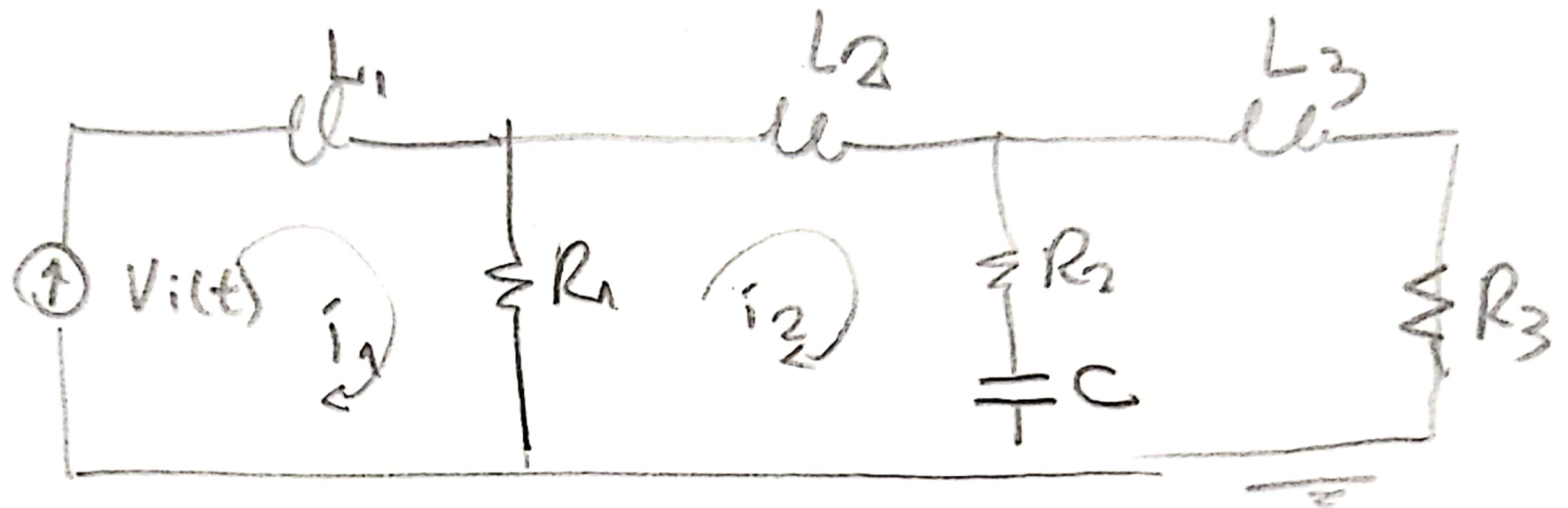
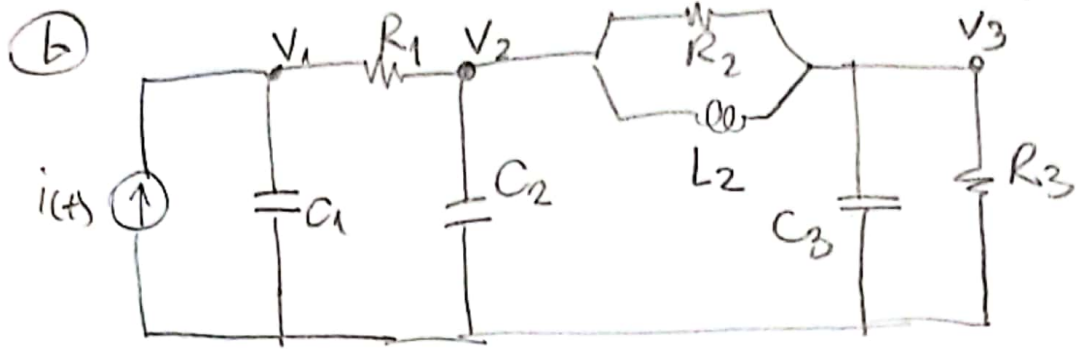


Q =





(c)  $V_1 \left( C_1 D + \frac{1}{R_1} \right) + V_2 \left( \frac{1}{R_1} \right) = i_1(t)$

$$V_2 \left( C_2 D + \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{L D} \right) - \frac{V_1}{R_1} - V_3 \left( \frac{1}{R_2} + \frac{1}{L D} \right) = 0$$

$$V_3 \left( C_3 D + \frac{1}{R_3} + \frac{1}{R_2} + \frac{1}{L D} \right) - V_2 \left( \frac{1}{R_2} + \frac{1}{L D} \right) = 0$$

$$\rightarrow A_1 h_1 + h_1 / R_1 - h_2 / R_1 = Q_1(t)$$

$$\rightarrow A_2 h_2 + h_2 \left( \frac{1}{R_1} + \frac{1}{R_2} \right) + \frac{q_2}{L} \int h_2 dt - h_1 / R_1 - h_3 / R_3 - \frac{q_3}{L} \int h_3 dt = 0$$

$$\rightarrow A_3 h_3 + h_3 \left( \frac{1}{R_2} + \frac{1}{R_3} \right) + \frac{q_3}{L} \int h_3 dt - h_2 / R_2 - \frac{q_2}{L} \int h_2 dt = 0$$

