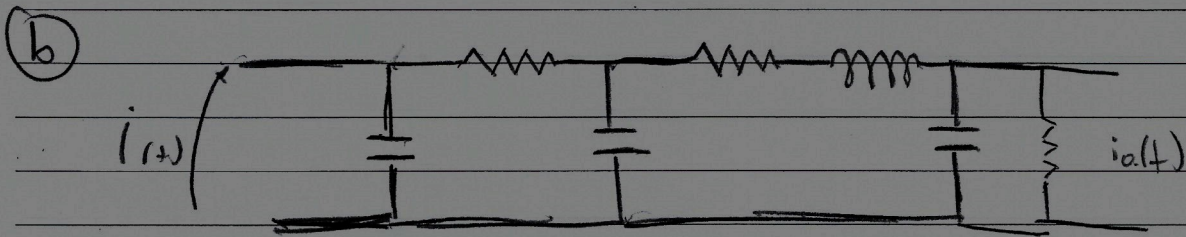
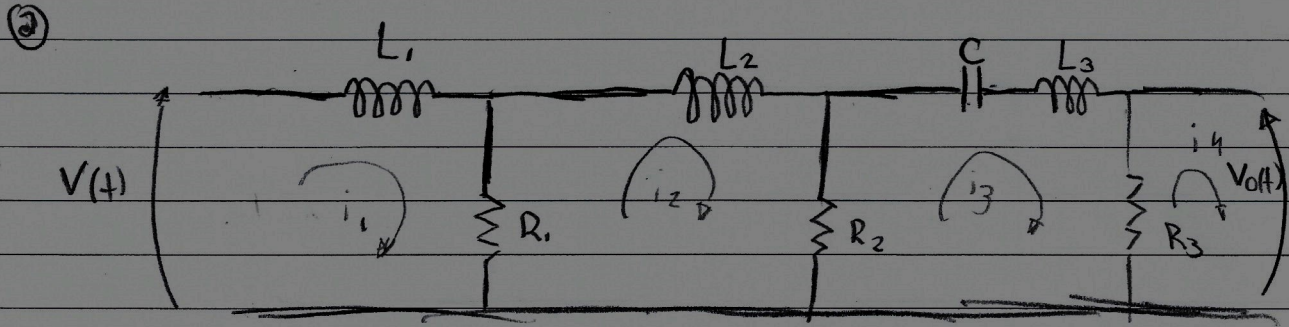
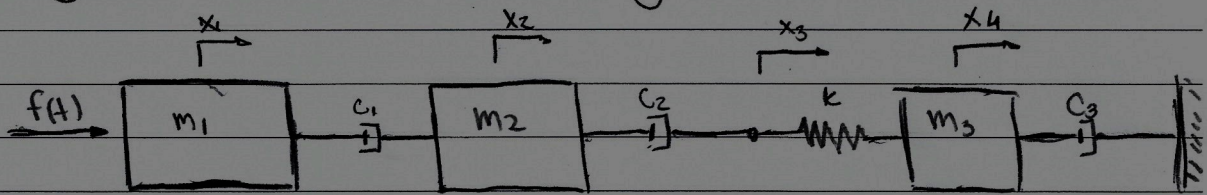


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$$V(t) - L_1 D i_1 - R_1 (i_1 - i_2) = 0$$

$$-L_2 D i_2 - R_2 (i_2 - i_3) - R_1 (i_2 - i_1) = 0$$

$$\frac{-1}{CD} i_3 - L_3 D i_3 - R_3 (i_3 - i_4) - R_2 (i_3 - i_2) = 0$$

$$-V_0(t) - R_3 (i_4 - i_3) = 0$$

$$\left. \begin{aligned} F(t) - m_1 \ddot{x}_1 - c_1(\dot{x}_1 - \dot{x}_2) &= 0 \\ -m_2 \ddot{x}_2 - b_2(\dot{x}_2 - \dot{x}_3) - b_1(\dot{x}_2 - \dot{x}_1) &= 0 \\ -m_3 \ddot{x}_3 - kx_3 - b_3(\dot{x}_3 - \dot{x}_4) - b_2(\dot{x}_3 - \dot{x}_2) &= 0 \\ -F_0 - b_3(\dot{x}_4 - \dot{x}_3) &= 0 \end{aligned} \right\}$$

$$C_{f1} \dot{p}_1 - \frac{(p_1 - p_2)}{R_f} = Q(t)$$

$$C_{f2} \dot{p}_2 + \frac{(p_2 - p_3)}{R_{f2}} + \frac{(p_2 - p_1)}{R_{f1}} = 0$$

$$C_{f3} \dot{p}_3 + \frac{1}{L_{fD}} p_3 + \frac{(p_3 - p_4)}{R_{f3}} + \frac{(p_3 - p_2)}{R_{f2}} = 0$$

$$\frac{(p_3 - p_4)}{R_{f3}} = F_0$$

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