

$$2-2 \quad U_2(\omega) = \frac{EC_1}{C_1 + C_2}$$

$$\Rightarrow U = \frac{EC_1}{C_1 + C_2}$$

$$\Rightarrow UC_1 + UC_2 = EC_1$$

$$\text{donc } UC_2 = C_1(E - U)$$

$$\Rightarrow C_2 = \frac{C_1(E - U)}{U}$$

$$U_{R_0} = E = 12V$$

$$\text{donc } C_2 = 10\mu F$$

$$Q_{R_0} \cdot T = 0.4ms$$

$$\text{donc } \frac{R_0 C_1 C_2}{C_1 + C_2} = 0.4 \times 10^{-3} s$$

$$\frac{C_1 C_2}{C_1 + C_2} = \frac{10 \times 10^{-6} \times 5 \times 10^{-6}}{10 \times 10^{-6} + 5 \times 10^{-6}} = 3.33 \times 10^{-6}$$

$$\text{Donc } R_0 = \frac{0.4 \times 10^{-3}}{3.33 \times 10^{-6}} = 120,12 \Omega$$

$$2-3 \quad E_0 = E_{e1} + E_{e2}$$

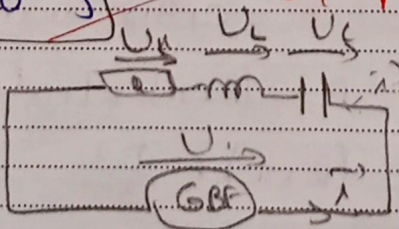
$$= \frac{1}{2} C_1 (U_1(\omega))^2 + \frac{1}{2} C_2 (U_2(\omega))^2$$

$$U_1(\omega) = 8V \quad U_2(\omega) = 1V$$

$$\text{donc } E_0 = \frac{1}{2} \times 5 \times 10^{-6} \times 8^2 + \frac{1}{2} \times 10 \times 10^{-6} \times 1^2$$

$$= 0.1 \times 10^{-4} J$$

Partie 2: RLC Forcé



مجموع نقط الصفحة

تنبيه: يمنع على المترشح (ة) الإمضاء أو وضع أي علامة يمكنها كشف هويته (ا)