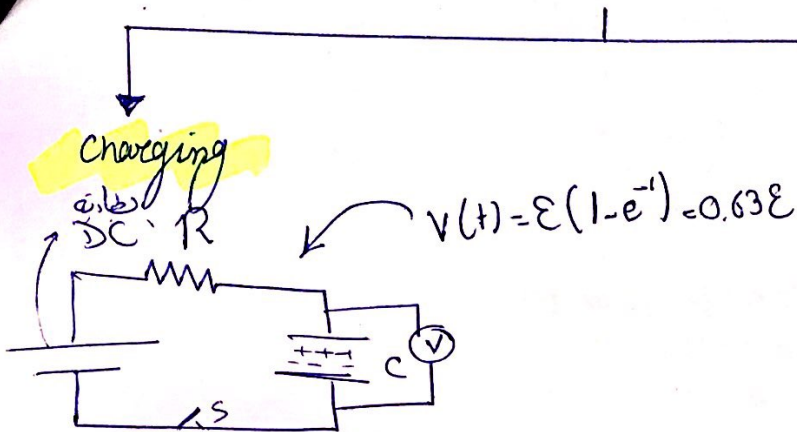
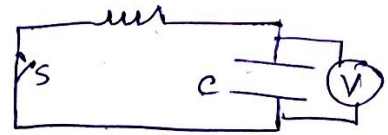


Exp 9: RC circuit



discharging



$$V = \frac{Q}{C}$$

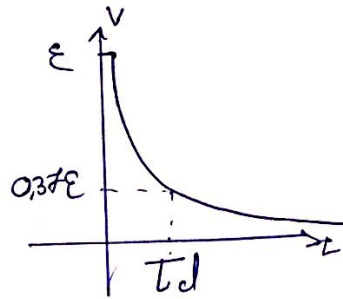
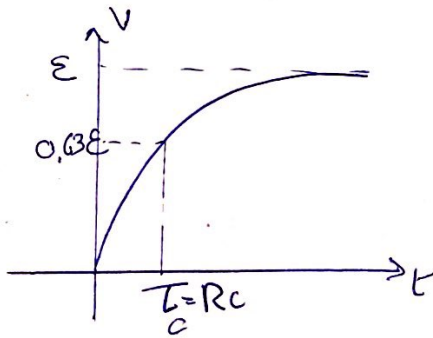
قسطه
جول

$$LCI = \text{Farad} = \frac{\text{Coulomb}}{\text{Volts}}$$

$$V_c = 0.37\epsilon$$

$$\tau = RC$$

$$V_c = 0.63\epsilon$$



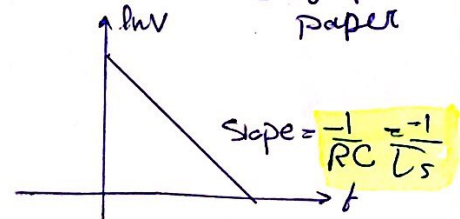
$$\tau_c = \tau_d$$

نظرياً

$$\bar{\tau} = \frac{\tau_c + \tau_d + \tau_s}{3}$$

متوسط

• on a semi-log graph paper

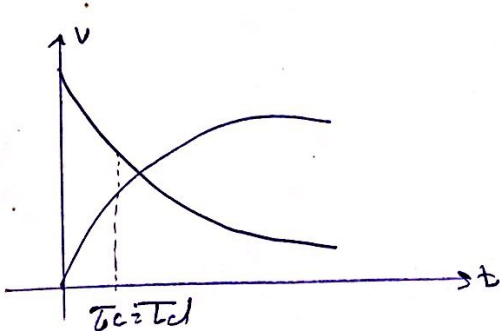


$$\Rightarrow C = \frac{\bar{\tau}}{R}$$

$$\frac{\Delta C}{C} \approx \frac{\Delta \bar{\tau}}{\bar{\tau}} + \frac{\Delta R}{R}$$

where $\Delta \bar{\tau}$ is calculated = σ_m

Theoretically



Alaa Elaiwi