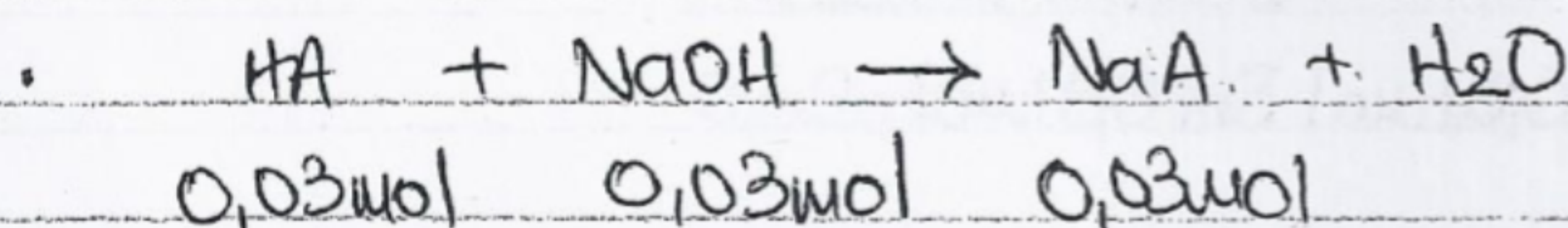
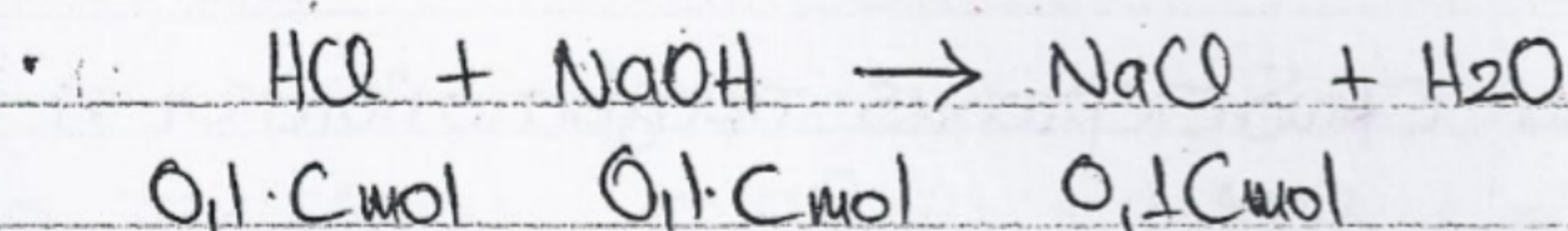


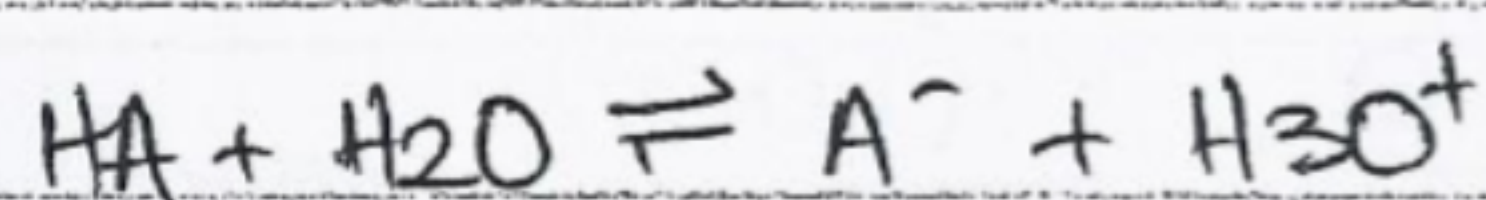
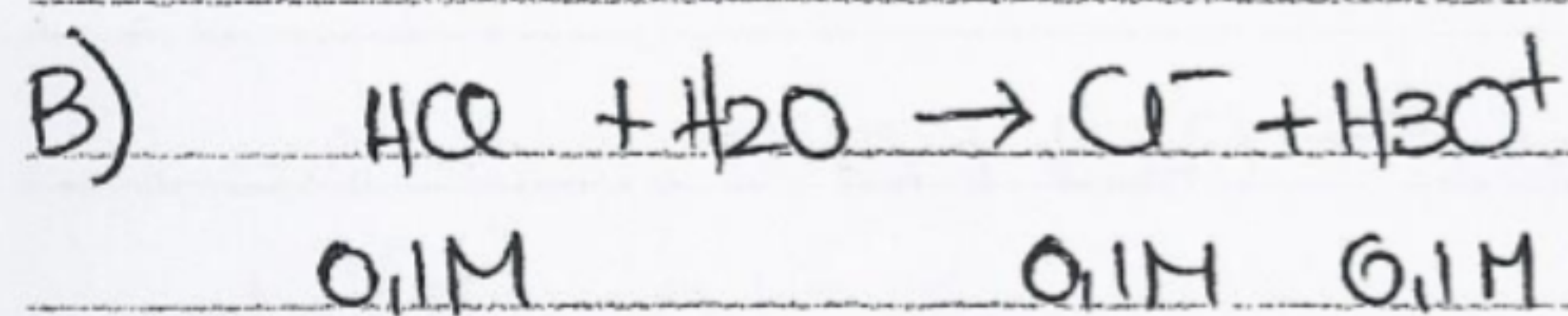
1)  $\Delta_1$ :  $n_{\text{HA}} = 0,3 \cdot 0,1 = 0,03 \text{ mol}$   
 $n_{\text{HCl}} = 0,1 \cdot C \text{ mol}$

$\Delta_{\text{NaOH}}$ :  $n_{\text{NaOH}} = 0,2 \cdot 0,2 = 0,04 \text{ mol}$

$\Delta_2$ : πραγματοποιείται πλήρης εξουδετέρωση των οξέων από:



$$n_{\text{ολ(NaOH)}} = 0,04 \text{ mol} \Rightarrow 0,1 \cdot C + 0,03 = 0,04 \Rightarrow C = 0,1 \text{ M}$$



..(M)  $0,3 - x \quad x \quad x + 0,1$

$$K_a = \frac{(x+0,1) \cdot x}{0,3-x} \approx \frac{0,1 \cdot x}{0,3} = 10^{-5} \Rightarrow x = 3 \cdot 10^{-5} \text{ M}$$

άρα:  $[\text{H}_3\text{O}^+] = x + 0,1 = 3 \cdot 10^{-5} + 0,1 \approx 0,1 \text{ M} \quad \text{pH} = 1$

$$\alpha_{\text{HA}} = \frac{3 \cdot 10^{-5}}{0,3} = 10^{-4}$$

