

اجابات أسئلة دروس الكيمياء العضوية

س : ١ - مقارنة القوي : $C_2H_5NH_2$ في اللف $C_2H_5NH_3^+$

- ٥ $C_2H_5NH_3^+$

- ٢ أمونيا

- ٤ ميثيل أمين

- ٥ نيتروجين أمونيا قاسية قسوة

$$K_1 \cdot X_1 = [NH_3] = [OH^-] \quad \text{في اللف}$$

$$K_2 \cdot X_2 = [CH_3O^+] \quad \text{في اللف}$$

١١ > ١٢ : قاسية قسوة

س : ١ - $C_6H_5NH_3^+$, $CH_3NH_3^+$, NH_4^+

- ٥ $C_6H_5NH_2$

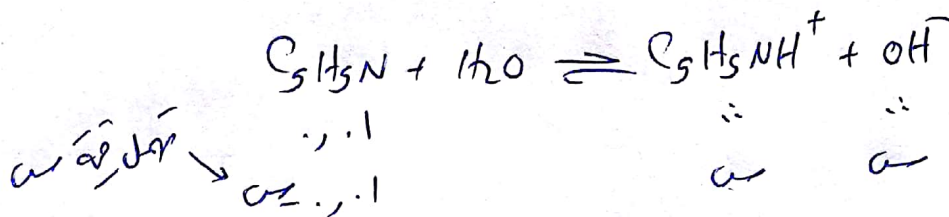
- ٢ $C_6H_5NH_2 < NH_3 < CH_3NH_2$

- ٤ $C_6H_5NH_2 > NH_3 > CH_3NH_2$

- ٥ $C_6H_5NH_2$

- ٦ CH_3NH_2

- ٧ $C_6H_5NH_2$



$$\frac{[C_5H_5NH^+][OH^-]}{[C_5H_5N]} = K_b$$

$$\frac{c}{c} = 1.7 \times 10^{-9}$$

$$K_2 \cdot X_2 = \frac{1.7 \times 10^{-9}}{1.7} = [OH^-] = c$$

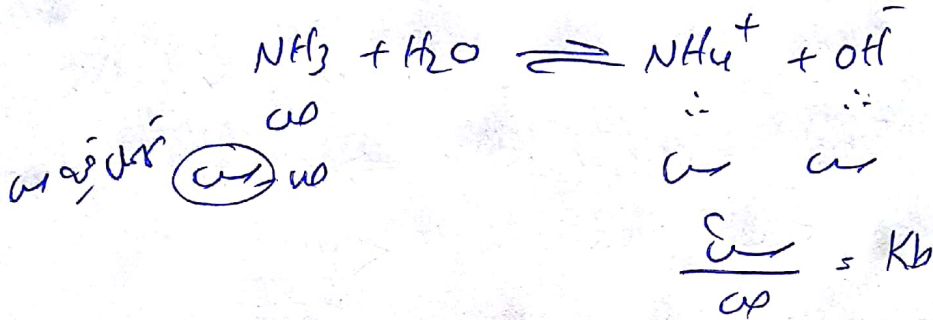
(1)

$$\frac{[NH_4^+][OH^-]}{[NH_3][H_2O]} = \frac{10^{-10}}{10^{-14}} = \frac{K_w}{[OH^-]} = [H_3O^+]$$

$$pH = -\log([H_3O^+]) = -\log(10^{-10}) = 10$$

$$pH = -\log([H_3O^+]) = 10$$

$$K_w = [H_3O^+][OH^-] \Rightarrow [OH^-] = \frac{K_w}{[H_3O^+]}$$



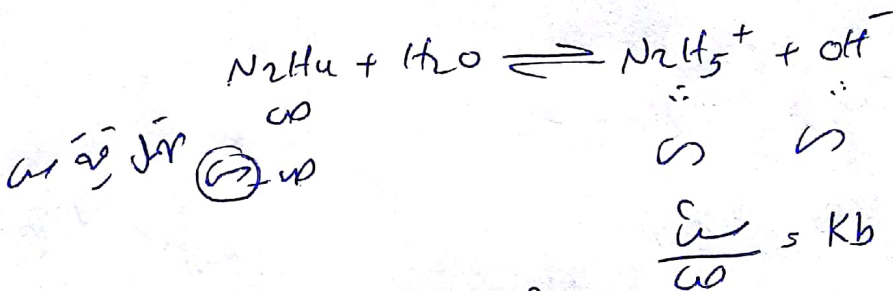
$$[NH_3] = \frac{[NH_4^+][OH^-]}{K_b}$$

$$0.1 - x = \frac{x \cdot x}{2} \Rightarrow x = 0.0447$$

$$pH = 14 - pOH = 14 - 0.35 = 13.65$$

$$pH = -\log([H_3O^+]) = 13.65$$

$$[OH^-] = \frac{K_w}{[H_3O^+]}$$

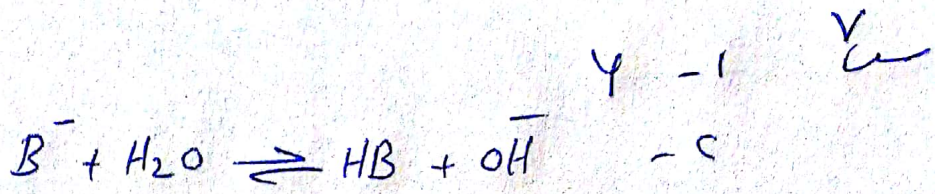


$$[N_2H_4] = \frac{[N_2H_5^+][OH^-]}{K_b}$$

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$$0.1 - x = \frac{x \cdot x}{K_b}$$



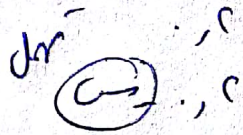
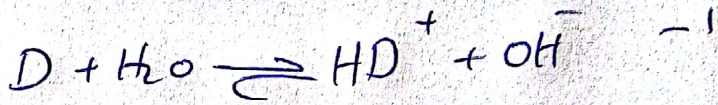


$\varnothing = 2$

$x \cdot y = 2$

$x = 2$

$A = 2 \quad D = 2 \quad F = 2 \quad E = 1$ Δ

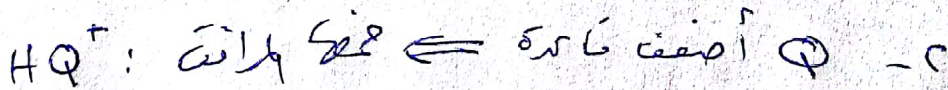


$K_b = \frac{[OH^-]}{[D]}$

$[OH^-] = \frac{[D] \cdot x}{1 + x} = \frac{[D] \cdot x}{1 + x}$

$[H_3O^+] = \frac{[D] \cdot x^2}{1 + x}$

$pH = -\log([H_3O^+])$



$\varnothing = 2 \quad D = 2$

