

HW
20/6/21

Home Assignment

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Q1) Distinguish between the acid and bases on the basis of Arrhenius theory and the Lewis theory.

Ans) Arrhenius Theory & differentiation →

Acids	Bases
* When we dissolve acid in water then the concentration of H^+ ions will increase.	* When we dissolve bases in water then the concentration of OH^- ions will increase.

Lewis Theory differentiation →

Acids	Bases
* Acids are electron (e^-) acceptors	* Bases are electron (e^-) donors.

Q2) Although NH_3 doesn't contain OH^- ions but still it behaves as a base. Why?

Ans) We can say that NH_3 is a base because when it is added in the water it give ammonium ion (NH_4^+) and hydroxyl ion (OH^-). Although it doesn't give much NH_4^+ ions

so we can call this a weak base.

Q3) What is the Ox-state of K-atom in Potassium permanganate?

Ans) Potassium Permanganate \rightarrow KMnO_4

Valency of $\text{O}_2 \rightarrow -2$

Valency of K $\rightarrow 1$

Valency of Mn $\rightarrow +2, +4, +7$

Mn $\rightarrow +2$

Ox-state of K = +6

Mn $\rightarrow +4$

Ox-state of K = +4

Mn $\rightarrow +7$

Ox state of K = +1