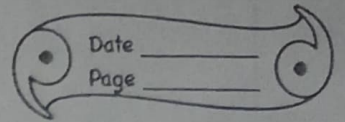


How
30/6/21



Q1. Distinguish between the concept of knowing acids and bases on basis of Arrhenius Theory and Lewis Theory.

Ans According to Arrhenius Theory
⇒ Acids are the chemical substances that release H^+ ions when dissolved in water.

⇒ Bases are the chemical substances that release OH^- ions when dissolved in water.

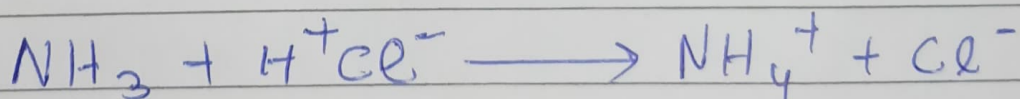
According to Lewis Theory:-

⇒ Acids are the substances that gains or receives electrons.

⇒ Bases are the substances that donates electrons.

Q2. Although NH_3 doesn't contain any OH^- ions still it behaves as a base? ^{why}

Ans



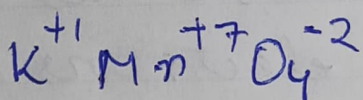
When NH_3 reacts with HCl it gives rise to NH_4^+ (Ammonium ion) and Cl^- ions (chloride).

According to Bronsted and Lowery theory substance which accepts H^+ ions are bases.

So, NH_3 is a base as it accepts H^+ ions.

Q3. What is the Ox State of K-atom in potassium permanganate.

Ans Potassium permanganate
 KMnO_4



$$x + 7 - 8 = 0$$

$$\Rightarrow x = 8 - 7$$

$$\Rightarrow x = 1$$

So, the oxidation state of K atom in KMnO_4 is (+1).