

Q1. Ans- According to Arrhenius Theory acids are the chemical substances that release H^+ ions when dissolved in water.

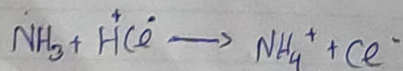
Bases are the chemical substances that release OH^- ions when dissolved in water.

According to Lewis Theory -

Bases are the substances that donate electrons.

Acids are the substances that gain or receive electrons.

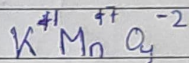
Q2. Ans- When NH_3 (Ammonia) reacts with HCl (Hydrochloric acid) NH_4^+ ions (Ammonium) and Cl^- ions (chloride) are formed.



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

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

Q3. Ans $KMnO_4$ - Potassium Permanganate



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