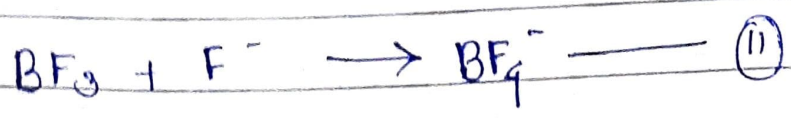
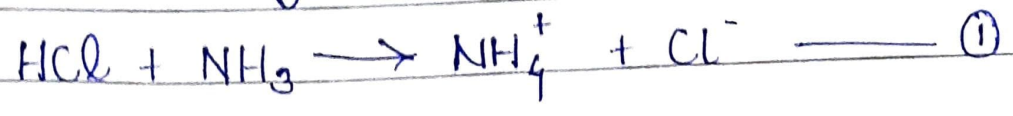


# ASSIGNMENT

1- Arrhenius theory is limited to water as it states that acids dissolve in water to give  $H^+$  ion and bases dissolve in water to give  $OH^-$  ion.

Whereas, Bronsted-Lowry theory state that an acid is substance that has a tendency to lose  $H^+$  (proton). Lewis states that acids have the tendency to receive an  $e^-$  and bases have the tendency to donate  $e^-$ .



(ii) Lewis also includes the concept where  $H^+$  isn't donated by <sup>some</sup> acids thus he provides

broader knowledge about Acids and bases.

2) Ammonia is a base but it doesn't contain  $(OH^-)$  group because on reacting with water ammonia forms ammonium hydroxide which further on ionization gives ammonium ion and hydroxide ion.

3) The oxidation state of manganese changes as the potassium permanganate (oxidation state +7) decomposes to potassium manganate (oxidation state +6) and manganese dioxide (oxidation state +4).