CHAPTER 02

Acids, Bases and Salts

Strength of acids & bases:

Most of the acids dissociate to furnish H^+ ions. Similarly, bases dissociate OH^- ions. Strength of acid & base always depends upon no. of H^+ ions or OH^- ions furnished by dissociation.

- Universal indicator is one, which shows different colours for different strength of acid. So we can use universal indicator to identify different acids or bases depending upon their strength.

p^H scale:

p^H scale is designed to describe strength of acids and bases based on hydrogen ion concentration.

- p^H scale is designed by Sorensen.
- It is the negative logarithm of H^+ ion concentration.
- p^H value decreases with increase in hydrogen ion concentration.

- Different values of p^H is identified and based on that we can predict whether given substance is acid, base (or) salt and their strength.
- If p^H is in between 0 – 7, substance is acidic in nature.
- If p^H is equal to 7, substance is salt.
- If p^H is in between 7 – 14, substance is basic.

Importance of p^H:

- Human body is designed in such a way, which can work only in certain p^H range that is between 7 to 7.8.
- The aquatic animals can't survive if p^H of rain water goes less than 5.6.
- Plants can survive only in certain p^H range between 5.5 to 7.8 of soil.