SAI International School CONCEPT MAPPING Subject – Chemistry-X Ch-2 Revision of Acids ,Bases & Salts

Module -18

Instructions:

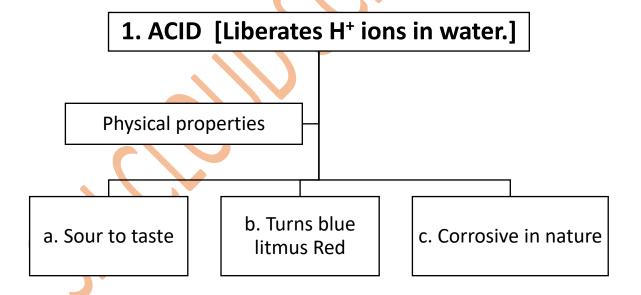
- > Students you go through the mind map given based on the concepts covered in Chapter-2.
- > Go through the concept mapping given
- Finally solve various conceptual questions given based on the various concepts of the Chapter.

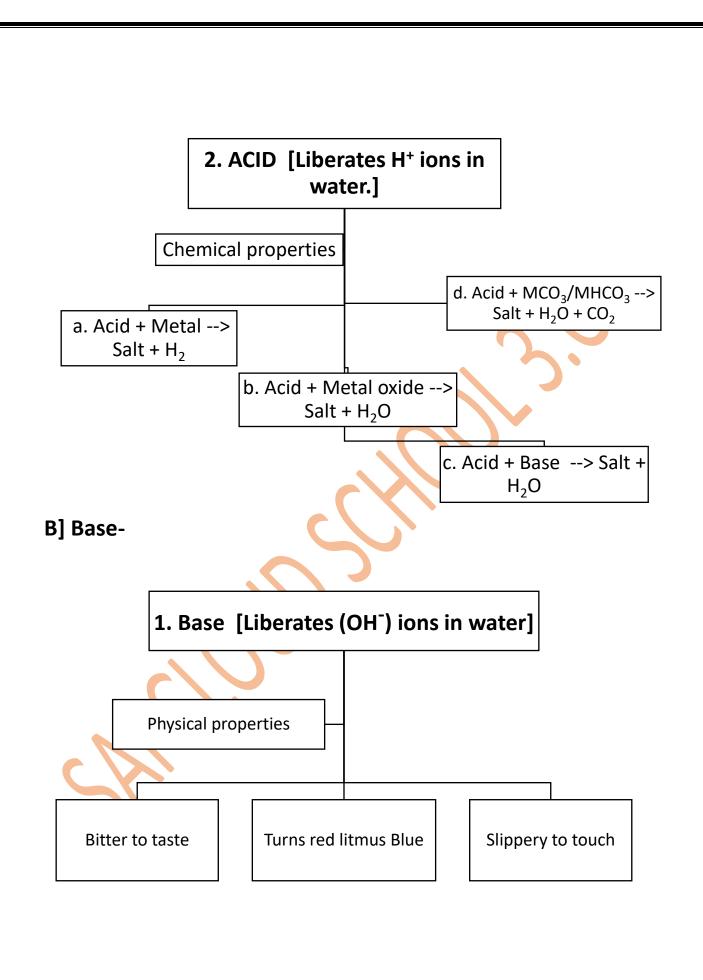
MIND MAP

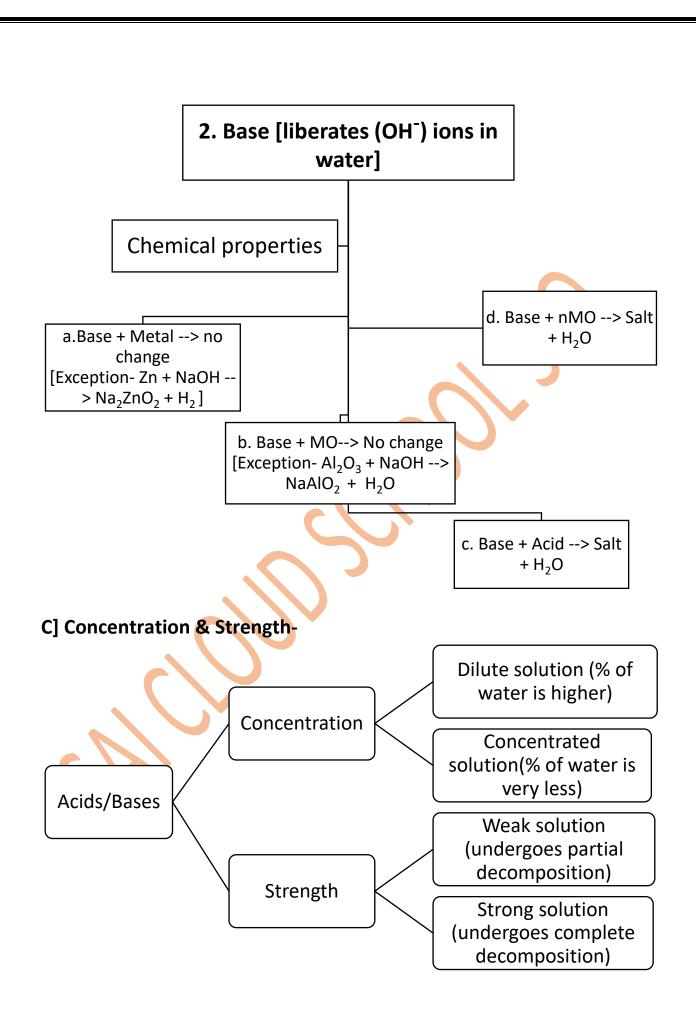
Ch-2

Acids, Bases & Salt

A] Acid-







D] pH-

pH of a solution is the power of [H⁺]

pH is measured using a pH scale which ranges from 0-14

When-

- *pH=0 Strong Acid
- *pH=4/5- Mild acid
- *ph=7- Neutral
- *pH=8/9- Mild base
- *pH=14- Strong base

pH solution is known as Universal Indicator & is a mixture of various dyes.

When-

- *pH=0-Deep red/pink
- *ph=4/5-Orange
- *pH=7-Green
- *pH=8/9-Greenish blue
- *pH=Deep blue

pH in every day life

- 1. pH of-
- *Acid Rain= 5.6
- * Living Organisms range from-7.0-7.81.
 - 4. *pH of Bee sting &
 - Nettle leaves= 5.0
 - * Acid present in them-

Methanoic/Formic Acid Cure- Apply a mild base like Baking

Soda.

2. *pH of Stomach is below 7.0 as it secretes HCl. *In case of indigestion more of HCl is secreted. So causes Acidity. * Cure- Use Antacid

like Baking Soda.

3. *pH of Saliva=7.4
* Tooth DecayWhen pH of mouth
goes below 5.5
*Cure- Brush teeth
twice daily with a
Basic tooth paste.
*Tooth Enamle is
made up of the
hardest chemicalCalcium Phosphate.

E] SALTS-Salts may be Acidic/Basic/Neutr al. 3. Neutral - Salt of 1. Acidic- Salt of 2. Basic-Salt of Strong Acid & Strong Acid & Strong Base & strong Base OR Weak Base. Weak Acid. Weak Acid & Weak Eg- NH₄Cl Eg- Na₂CO₃ Base. Eg-NaCl, CuCO₃ F] Salts to be studied-Salts to be Sodium Salts Calcium Salts NaCl CaSO₄.1/2 CaOCl₂ Na₂CO₃ 10 NaHCO₃ Common Bleaching H_2O H20 Baking Salt Powder Plaster Of Washing Soda paris Soda Got from By Solvay's a.Sea Water Ca(OH)2 +Cl2 Process----> CaOCl2 + NaCl+H2O+NH₃ *Step-1. Evaporation H20 CaSO₄ -- 373K--> + CO2--> NaHCO₃--heat-b.Rock Salt by CaSO₄.1/2H2O NH4Cl + NaHCO3 > Na₂CO₃ + CO₂mining. +H₂O *Step-2. Uses-Na2CO3 + 10 Uses-1. Bleaching CHLOR-H2O --> 1.Antacid purposes in ALKALI Na2CO3.10H2O Uses-2. Soda Acid textile & paper **Process** Uses-1. Joining of lfire NaCl + H₂O--> industries. 1. removing fractured extinguisher $NaOH + H_2 +$ 2. Disinfecting permanent lbones. 3. Baking of Cl_2 water in tanks Hardness of 2. Smoothening food items & Drains. Water of walls & 4. used to 3. Oxidising 2.In Laundries decorative make Baking for washing of Agent ceilings Powder. clothes. 3. In Soap, Glass & Paper Industries