

# Water.

I Define the following terms

1. Potable water :- The water which is fit for human consumption and for drinking purposes
2. Solute :- The substance which dissolves or disappears in the solvent i.e. liquid to form a solution is called a solute  
[ It is a dissolved substance, ex: salt ]
3. Solvent :- The liquid or medium of dissolution which allows the solute to dissolve in it, so as to form a solution is called a solvent  
[ It is the substance which dissolves the solute, ex: water ]
4. Solution :- A homogeneous mixture of a solute in a solvent is called a solution  
[ It is the mixture of the solute and solvent ]
5. Solubility of a solute :- It is the maximum amount of solute in grams that will saturate 100g. of water at  ${}^{\circ}\text{C}$ .
6. Super saturated solution :- It is one which can hold or contains more of the solute at a given temperature than that present in a saturated solution.
7. Crystallisation :- The process of separation or deposition of crystals from a hot saturated solution on gentle cooling of the solution.

## Q1 Differentiate b/w the following

### 1. Saturated and Unsaturated solution

Saturated	Unsaturated
* Saturated solution is one in which cannot dissolve more of the solute at a given temperature.	* Unsaturated solution is one which can dissolve more of the solute at a given temperature.

Example :-

Example :-

### 2. Hydrated and Anhydrous crystals

#### Hydrated

\* Hydrated crystals contain definite number of water molecules in loose chemical combination with the crystal.

#### Anhydrous

\* Anhydrous crystals do not contain any definite number of water molecules in loose chemical combination with the crystal.

Ex:- Sodium carbonate (washing soda)  
Calcium sulphate (Gypsum)

Ex:- Sulphates of

Potassium -  $K_2SO_4$   
Ammonium -  $(NH_4)_2SO_4$

### 3. Drying agent and dehydrating agent

#### Drying agent

These are the substances which absorb moisture from other substances

#### Dehydrating agent

These are the substances which remove chemically combined water from compounds due to their strong affinity for water

Example:- \* Concentrated sulphuric acid  
\* Quick Lime ( $\text{CaO}$ )  
\* Phosphorus pentoxide ( $\text{P}_2\text{O}_5$ )

Example:- \* Concentrated sulphuric acid