→ **Electrolyte**:- Those substance which dissociate into ions in their aqueous sol^n on passing electricity are known as electrolyte, eg. NaCl, KCl.

→ **Non-Electrolyte**:- substance which doesn't dissociate into ions in their aqueous sol^n on passing electricity. eg. Sugar, Urea, Glucose

→ **Types of Electrolyte**:-

i) **Strong Electrolyte**: Which dissociate Completely into ions. eg:- HCl, HNO_3, H_2SO_4

ii) **Weak Electrolyte**: Which dissociate partially into ions.
eg:- NH_4OH, $Ca(OH)_2$, CH_3COOH, etc.

→ **CONDUCTORS**~

i) **Metallic Conductors**:-

- Flow of electricity is due to the flow of e^-
- Also known as electronic conductors.
- Flow of electricity takes place without the decomposition of substance.
- The electrical conduction decreases with increase of temperature. Because atoms start vibrating which produce hinderance in the flow of electrons. (slow down)
- Low as well as High Voltage of current can pass through metallic conductors. eg. Fe, Al, Ag, etc.

→ii) **Electrolytic Conductors**:-

- Flow of electricity is due to the flow of ions.
- Also known as ionic conductors.
- Flow of electricity takes place by the decomposition of substance.
- The electrical conduction increases with increase of temp. Because increase in dissociation or decrease in interionic attraction
- Only low voltage of current can pass through electrolytic conductor.
  eg. NaCl, NaOH, etc.

→ **Factors Influencing Electrolytic Conduction**

- **Nature of Electrolyte**:- larger the no. of ions, more is conduction.
- **Nature of Solvent**:- The electrolytes ionize in water but not in organic solvents like benzene because water is polar where as benzene is non-polar, so, electrolytic conductance increase in polar solvents.
- **Solute-Solvent attractions/Solvation or Hydration**: larger the solvation of ions, lesser is conductance.
- **Temperature**:- As the temp. increases, the conductance also increases because the dissociation of electrolyte increases. so, number of ions as well as the speed of ions increases.
- **Dilution**:- As dilution increases, the number of ions of a weak electrolyte as well as their speed increases and so conductance also increases.

Q. What is Cell?

It is a device which used to convert one form of energy into another form of energy

i) **Electrochemical Cell** → Changes chemical energy into electrical energy

1. Anode is -ve
2. Cathode is +ve
3. Spontaneous reaction occurs.
4. Does not require external voltage source

ii) **Electrolytic Cell** → changes electrical energy into chemical energy.

1. Anode is +ve
2. Cathode is -ve
3. Non-spontaneous reaction occurs
4. Require external voltage source.

→ **Salt Bridge/Salt Junction**:

a U-shaped glass tube containing conc.^{n} sol^n of an inert electrolyte like KCl, KNO_3, K_2SO_4 in agar-agar form whose one end is dipped in one beaker and 2nd end is dipped in another beaker.

- **Functions**:-

i) Prevent the passage of one electrolyte into another
ii) It complete the inner cell circuit.
iii) It maintains the electrical neutrality of sol^n in both half cells
iv) Used to connect both the beakers.