



## **19CH201 - ENGINEERING CHEMISTRY**

### **UNIT-1 - ELECTROCHEMISTRY**

#### **Introduction – Electro Chemistry**

#### **Electrochemistry**

Electrochemistry is a branch of chemistry, which deals with the chemical applications of electricity. Electrochemistry deals with the chemical reactions produced by passing electric current through an electrolyte or the production of electric current through chemical reactions.

#### **Conductors**

A substance or material that allows electric current to pass through it is called a conductor. The ability of a material to conduct electric current is called conductance.

Examples: All metals, graphite, fused salts, aqueous solutions of acids, bases, etc.,

#### **Non-Conductors (or) Insulators**

Materials which do not conduct electric current are called non- conductors or insulators. Examples: Plastics, wood, most of the non metals, etc.,

#### **Types of Conductors**

The conductors are broadly classified into two types as follows.

##### **1. Metallic conductors (or) Electronic conductors**

Metallic conductors are solid substances, which conduct electric current due to the movement of electrons from one end to another end. The conduction decreases with increase of temperature.

Ex: All metals, graphite.



## **2. Electrolytic Conductors**

Electrolytic conductors conduct electric current due to the movement of ions in solution or in fused state. The conduction increases with increase of temperature.

Ex: Acids, bases, electrovalent substances.