SUBJECT:- PHYSICS   CLASS:- XTH   DATE:08/04/XXI

SUBJECT TEACHER:- MR. NEEL NIRANJAN

CHAPTER 1. (ELECTRICITY) (BASED ON NCERT PATTERN)

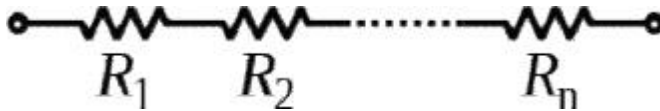**Factors on which resistance depends:**

- $R \propto 1$, when A and material constant l = length

- $R \propto 1/A$, when l and material constant A = perpendicular cross-section

  $R \propto l/A$,

  $R = \rho l/A$, where ρ = resistivity

Resistivity: Resistivity of a substance is equal to the resistance of a substance having 1 metre length and 1 square metre area.

It's unit is 0hm.metre

➢ **Resistance in a series connection:**

$R = R1 + R2 + R3 + … + Rn$

➢ **Resistance in parallel:**

$$\frac{1}{R_{total}} = \frac{1}{R_1} + \frac{1}{R_2} + \cdots + \frac{1}{R_n}$$