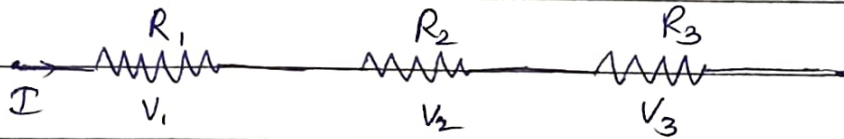


Lecture - 6 Series and parallel combination

• Series

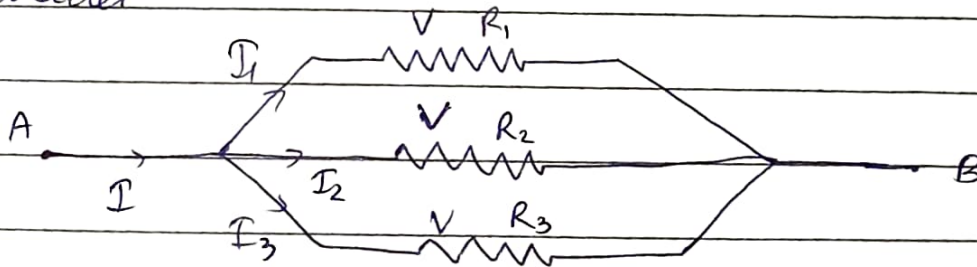


$$V = V_1 + V_2 + V_3$$

$$R_{eq} = R_1 + R_2 + R_3$$

∴ For n Resistors $R_{eq} = R_1 + R_2 + \dots + R_n$

• Parallel



$$I = I_1 + I_2 + I_3$$

$$\frac{1}{R_{eq}} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}$$

∴ For n Resistors

$$\frac{1}{R_{eq}} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} + \dots + \frac{1}{R_n}$$