

O P JINDAL SCHOOL, SAVITRINAGAR

CLASS NOTES

CLASS X PHYSICS

TOPIC : ELECTRICITY

Date : 04 /04/20

SUBTOPIC : COMBINATION OF RESISTANCE

Q1 There are three resistors joined in series in a system having resistance equal to $10\ \Omega$, $20\ \Omega$ and $30\ \Omega$ respectively. If the potential difference of the circuit is $240\ \text{V}$, find the total resistance and current through the circuit.

Q2 There are two electric lamps M and N which are joined in a series having resistance equal to $15\ \Omega$ and $20\ \Omega$ respectively. If the potential difference between two terminals of electric circuit is $220\ \text{V}$, find the total resistance and electric current through the circuit. Also find the potential difference across the two lamps separately.

Q3 There are two resistors R_1 and R_2 having resistance equal to $20\ \Omega$ and $30\ \Omega$ respectively are connected in parallel in an electric circuit. If the potential difference across the electric circuit is $5\ \text{V}$, find the electric current flowing through the circuit and the total resistance of the resistors.

Q4 There are five electric appliances, viz. electric heater and electric lamp, an electric fan, computer and an exhaust fan are connected in parallel in a household. The resistance electric appliances are $40\ \Omega$, $5\ \Omega$, $8\ \Omega$, $20\ \Omega$ and $10\ \Omega$ respectively. If an electric current of $240\ \text{V}$ is flowing through the circuit then find
Q5 find the current on each branch of resistance

