JSUNIL TUTORIAL

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ASSIGNMENT

Numerical on Current Electricity

Q. 1. Find the work done by an electron to maintain the potential difference of 80V?

Q. 2. What is the potential difference between the ends of 16Ω resistance, when a current of 1.5A flows through it?

Q. 3. The potential difference across the the terminals of an electric iron is 240V and the current is 6 A what is the resistance of electric iron?

Q. 4. If there are 10^8 electrons flowing across any cross section of a wire in 4 minutes, what is the current in the wire?

Q. 5. .A copper wire has diameter o.5mm and resistivity 1.6×10^{-8} ohm m what will be the length of this wire to make the resistance of 10 ohms?

Q. 6. Find the effective resistance of resistors 0.01 ohms and 10^7 ohms.in series and parallel

Q. 7. Two resistors of same materials has been connected in series first and then in parallel. Draw a V – I graph to distinguish these connection.

Q. 8. Three resistors 3,4,5 ohms are joined in parallel in a circuit. If a current of 150 mA=150×10^{-3}A flows through the resistor of 4 ohms, then find the values of the current in mA which will be flowing in other two resistors?

Q. 9. A wire of length 2cm having resistance R is stretched to have an increase of 100% of original length . Find its new resistance with respect to its original resistance.

Q. 10. An electric lamp has resistance of 400 ohms. It is connected to a supply of 250V. If the price of electric energy is Rs.1.20 per unit, calculate the cost of lighting the lamp for 20 hours.