INTERNATIONAL INDIAN SCHOOL BURAIDAH

CLASS-10 PHYSICS WORKSHEET

CHAPTER-10

ELECTRICITY

1.A charge of 150 coulomb flows through a wire in one minute. Find the electric current flowing through it.

2.What is the shape of the graph between V and I, where V is the potential difference applied between the ends of a wire and I is the current flowing through it?

3.An electric heater rated 800 W operates 6h/day. Find the cost of energy to operate it for 30 days at ₹3.00 per unit.

4.Three resistors of 10 Ω, 15 Ω and 5 Ω are connected in parallel. Find their equivalent resistance.

5.An electric bulb is rated 220 V and 100 W. When it is operated on 110 V, the power consumed will be _____.

(a) 75 W

(b) 100 W

(c) 50 W

(d) 25 W

6.An electric lamp of 100 Ω, a toaster of resistance 50 Ω and a water filter of resistance 500 Ω resistances are connected in parallel to a 220 V source. What is the resistance of an electric iron connected to the same source that takes as much current as all three appliances, and what is the current that flows through it?

7. How does the use of a fuse wire protect electrical appliances?

8.How much current will an electric iron draw from a 220 V source if the resistance of its element when hot is 55 ohms? Calculate the wattage of the electric iron when it operates on 220 volts.

9.What is electrical resistivity? In a particular series electrical circuit comprising a resistor made up of a metallic wire, the ammeter generally reads 5 A. The previous reading of the ammeter decreases to half in case the length of the wire is doubled. Why?

10. Three resistors of 5 Ω, 10 Ω and 15 Ω are connected in series, and the entire combination is connected to a battery of 30 V. Ammeter and Voltmeter are connected in the circuit. Draw a circuit diagram to connect all the devices in the proper, correct order. What is the current flowing and potential difference across 10 Ω resistance?