Chapter- 12

ELECTRICITY

WORKSHEET

1. **Out of 60 W and 40 W lamps, which one has a higher electrical resistance when in use? (1 MARK)**
2. **What is the function of a galvanometer in a circuit? (1 MARK)**
3. **Why are the coils of electric toasters made of an alloy rather than a pure metal? (1 MARK)**
4. **A piece of wire of resistance 20 Ω is drawn out so that its length is increased to twice its original length. Calculate the resistance of the wire in the new situation. (1 MARK)**
5. **The values of current (I) flowing through a given resistor of resistance (R), for the corresponding values of potential difference (V) across the resistor are as given below : (3 MARKS)**
   Plot a graph between current (I) and potential difference (V) and determine the resistance (R) of the resistor.

V in volts	**0.5**	**1.0**	**1.5**	**2.0**	**2.5**	**3.0**	**3.5**	**4.0**
I in amperes	**0.1**	**0.2**	**0.3**	**0.4**	**0.5**	**0.6**	**0.7**	**0.8**

6. **While studying the dependence of potential difference (V) across a resistor on the current (I) passing through it, in order to determine the resistance of the resistor, a student took 5 readings for different values of current and plotted a graph between V and I. (3 MARKS)**
   He got a straight line graph passing through the origin. What does the straight line signify? Write the method of determining resistance of the resistor using this graph.