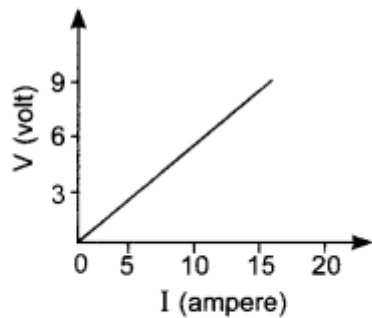


# SARALA BIRLA PUBLIC SCHOOL

Birla Knowledge City, Mahilong, Ranchi  
CLASS-X, (2020-21)

## Sub: ...PHYSICS Assignment-5

1. The resistance whose V-I graph is given below is



- (a)  $\frac{5}{3} \Omega$                       (b)  $\frac{3}{5} \Omega$   
(c)  $\frac{5}{2} \Omega$                       (d)  $\frac{2}{5} \Omega$

2. Two resistors connected in series give an equivalent resistance of  $10 \Omega$ . When connected in parallel, they give  $2.4 \Omega$ . Then the individual resistance is

- (a) each of  $5 \Omega$   
(b)  $6 \Omega$  and  $4 \Omega$   
(c)  $7 \Omega$  and  $4 \Omega$   
(d)  $8 \Omega$  and  $2 \Omega$

3. What is the rate of flow of electric charges called?

- (a) electric potential  
(b) electric conductance  
(c) electric current  
(d) none of these

4. Which of the following is the SI Unit of Electric Current?

- (a) ohm
- (b) ampere
- (c)volt
- (d) faraday

5. Which instrument is used for measuring electric potential?

- (a) ammeter
- (b) galvanometer
- (C) voltmeter
- (d) potentiometer

6. An electrical appliance has a resistance of  $25 \Omega$ . When this electrical appliance is connected to a  $230 \text{ V}$  supply line, the current passing through it will be

- (a)  $0.92 \text{ A}$
- (b)  $2.9 \text{ A}$
- (c)  $9.2 \text{ A}$
- (d)  $92 \text{ A}$

7. When a current 'I' flows through a resistance 'R' for time 't' the heat energy is given by

- (a)  $IRt$
- (b)  $I^2Rt$
- (c)  $IR^2t$
- (d)  $I^2 R/t$

8. Electrical resistivity of a given metallic wire depends upon

- (a) Its length
- (b) Its thickness
- (c) its shape
- (d) Nature of the material

9. A current of  $1 \text{ A}$  is drawn by a filament of an electric bulb. Number of electrons passing through a cross section of the filament in  $16 \text{ Seconds}$  would be roughly

- (a)  $10^{20}$

(b)  $10^{16}$

(c)  $10^{18}$

(d)  $10^{23}$

10. What is the maximum resistance which can be made using five resistors each of  $1/5 \Omega$ ?

(a)  $1/5 \Omega$

(b)  $10 \Omega$

(c)  $5 \Omega$

(d)  $1 \Omega$

11. What is the minimum resistance which can be made using five resistors each of  $1/5 \Omega$ ?

(a)  $1/5 \Omega$

(b)  $1/25 \Omega$

(c)  $1/10 \Omega$

(d)  $25 \Omega$

**Project:** Make a project on household circuit showing the different components used in it. Also explain the following terms: a) fuse b) earthing c) short circuiting d) overloading