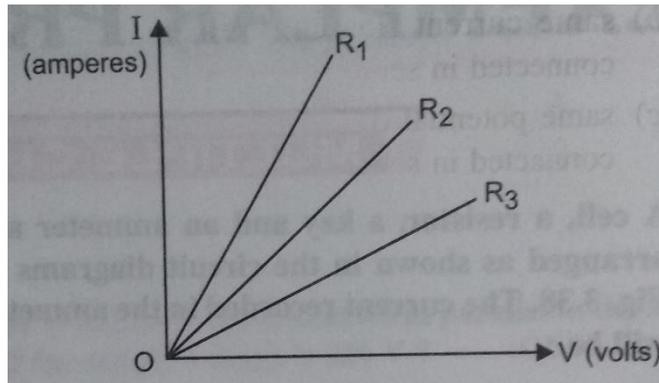


REVISION PRACTICE ASSIGNMENT (RPA)**SUBJECT- PHYSICS****SESSION-2020-21****CLASS-X****TOPIC: CH-12 (ELECTRICITY)****Answer the following questions as instructed: -****SECTION:-I**

Multiple choice question: -

1. A student carries out an experiment and plots a V-I graph of three samples of nichrome wire with resistance R_1, R_2 and R_3 respectively as shown below. Which of the following is true?



(a) $R_1 = R_2 = R_3$

(b) $R_1 > R_2 > R_3$

(c) $R_3 > R_2 > R_1$

(d) $R_2 > R_3 > R_1$

2. Which of the following represents voltage?

(a) $\frac{\text{work done}}{\text{current} \times \text{Time}}$

(b) $\text{work done} \times \text{Charge}$

(c) $\frac{\text{Work done} \times \text{Time}}{\text{Current}}$

(d) $\text{Work done} \times \text{Charge} \times \text{Time}$

3. The resistivity does not change if: -

- (a) the material is changed
- (b) the temperature is changed
- (c) the shape of the resistor is changed
- (d) both material and temperature are changed

4. Unit of electric power may also be expressed as: -

- (a) volt. ampere
- (b) kilowatt. hour
- (c) watt. second
- (d) joule. second

5. Electrical resistivity of a given metallic wire depends upon: -

- (a) its length.
- (b) its thickness.
- (c) its shape
- (d) nature of the material

SECTION: - II

Fill in the blanks: -

6......is the device used to measure the potential difference.

7...... is the device used to measure the electric current?

8.The resistance of Voltmeter is

9.The resistance of Ammeter is

10.A fuse is connected in..... towire.

SECTION: - III

Short Answer Type Questions: -

11. Define Ohm's Law and Draw V-I graph. Name the physical quantity obtained from the slope of V-I graph.

12. Name the factors on which the resistance of a conductor depends. Hence define the resistivity.

13. Define the following terms and also write their mathematical formula: -

- a. Electric Potential
- b. Electric Current
- c. Resistance
- d. Joule's law of heating.

SECTION: - IV

Long Answer Type Question: -

14. The figure drawn below shows three cylindrical copper conductors along with their face areas and lengths. Compare the resistance and resistivity of three conductors justify your answer.

