INTERNATIONAL INDIAN SCHOOL BURAIDAH
WORKSHEET FOR THE ACADEMIC YEAR 2026-27
Class-10 Subject: Physics
CH#12 ELECTRICITY

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1. A wire of length l, made of material resistivity r is cut into two equal parts. The resistivity of the two parts are equal to,

(a) ρ (b) ρ /2 (c) 2 ρ (d) 4 ρ

2. 1. The unit of charge is

(a) ampere (b) coulomb (c) newton (d) volt

3. One ampere is equal to

(a) 1 C/s (b) 1Cx1s (c) 1Jx1C (d) 1J/C

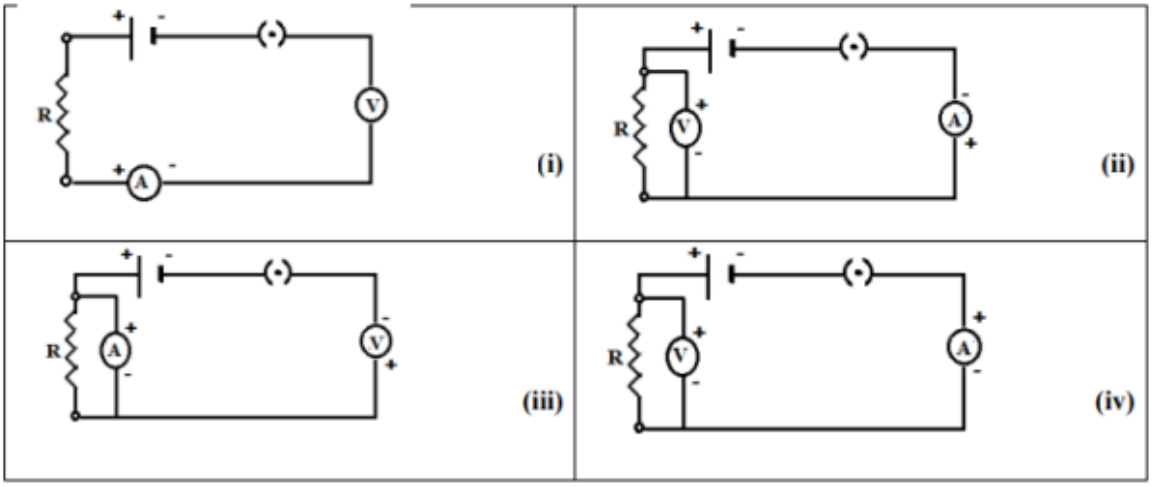
4. _____ is the amount of charge flowing through a particular area of cross section of a conductor in unit time.

(a) charge (b) electric current (c) potential (d) energy

5. Which is bigger: a coulomb of charge or the charge of an electron?

(a) Coulomb of charge (b) Charge of an electron (c) Both are same (d) None

6. Identify the circuit, the diagrams given below, in which the electrical components have been properly connected



(a) (i) (b) (ii) (c) (iii) (d) (iv)

7. What is the work done in moving a charge of Q coulomb against a potential difference of V volt?

(a) Q/V (b) QV (c) Q+V (d) Q-V

8. The device used for measuring current is

(a) galvanometer (b) ammeter (c) voltmeter (d) potentiometer

9. Three resistances of 4Ω, 5 Ω and 20 Ω are connected in parallel. Their combined resistance is

(a) 2 Ω (b) 4 Ω (c) 5 Ω (d) 20 Ω

10. How many electrons are equals to 1 coulomb?

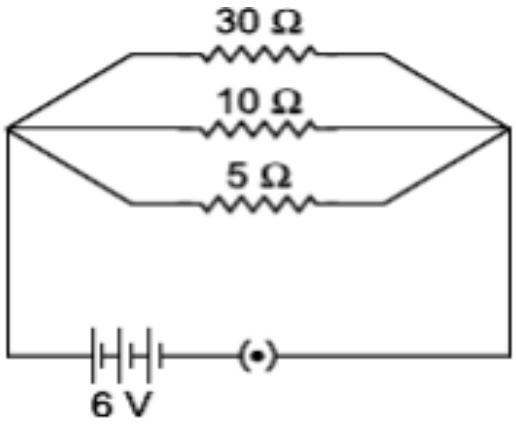
(a) 6.25×10^{16} (b) 6.25×10^{17} (c) 6.25×10^{18} (d) 6.25×10^{19}

ANSWER THE FOLLOWING QUESTIONS

11. For the electric circuit given below calculate: (i) Current in each resistor,

(ii) Total current drawn from the battery, and

(iii) Equivalent resistance of the circuit.



12. A current of 1 A is drawn by a filament of an electric bulb. Calculate the number of electrons passing through the cross-section of the filament in 30 minutes.

13. Draw a circuit diagram consisting of a battery of 1.5V and three resistors 5Ω, 4Ω and 3Ω respectively, joined in series with an ammeter and key. Find out the current in the circuit.

14. Two identical resistors are first connected in series and then in parallel. Find the ratio of equivalent resistance in two cases.

15. A wire of resistance20Ω is bent to form a closed square what is the resistance across a diagonal of the square?