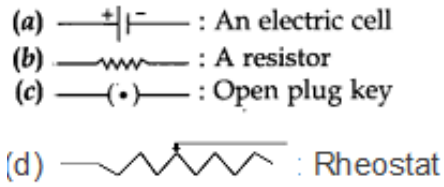
CLASS10-ELECTRICITY-MODULE-1

Work sheet -1

1 The electric resistance of insulators is

(a) High (b) low (c) zero (d) infinitely high

2. Which of the following is not correctly matched?



3. Coulomb is the SI unit of?

(a) Charge (b) current

(c) potential difference (d) resistance

4. Electric pressure difference is also known as

(a) Resistance (b) power (c) Electric potential difference (d) energy

5. On rubbing glass rod with silk cloth it is found that 500 electrons transfer from glass rod to silk cloth. Nature of charge on glass rod and silk cloth respectively will be:

(a) Positive, positive (b) negative, positive (c) positive, negative

(d) negative, negative

6. In above question magnitude of charge in coulomb on glass rod will be:

(a) 8.0×10^{-19} (b) 80.0×10^{-19} (c) 8.0×10^{-17} (d) 80.0×10^{-17}

7. Behaviour of metals as conductors is due to presence of:

(a) Bound electrons (b) free electrons (c) inner electrons (d) protons

8. A metallic conductor has loosely bound electrons called free electrons. The metallic conductor is:

(a) negatively charged (b) positively charged (c) neutral (d) Either positively charged or negatively charged

9 Name the physical quantity whose SI unit is Volt-Coulomb:

(a) Work (b) potential (c) current (d) charge

10. Electric wires are made up of _____ but they are covered with _____.

(a) Conductors ,Insulators (b) Insulators , conductors

(c) Insulators, Insulators (d) conductors, conductors

11. Which of the following statements is true regarding voltmeter and ammeter?

(a) Voltmeter is always connected in series

(b) Ammeter is always connected in series

(c) Ammeter is always connected in parallel

(d) Voltmeter and ammeter can be connected anywhere in a circuit

12. Why a battery or a cell is connected in a circuit?

(a) To measure current (b) To maintain potential difference

(c) to measure voltage (d) to oppose current

13. For which of the following physical quantities "ampere second" can be a unit

(a) current (b) charge (c) potential difference (d) work done

14 Two points A and B are at potentials V_1 and V_2 with $V_1 > V_2$. If they are connected by a wire, the direction of flow of current and electrons will be

(a) Current from A to B and electrons from B to A
(b) Current from B to A and electrons from B to A
(c) Current from B to A and electrons from A to B
(d) Current from A to B and electrons from A to B

15. Which of the following represents electric potential difference?

(a) $\frac{Work\ done}{Current\ x\ time}$ (b) work done x charge

(c) $\frac{Work\ done\ x\ time}{Current}$ (d) work done x charge x time

16. The resistance of an ideal ammeter should be

(a) zero (b) low (c) high (d) infinitely high

17 A current of 1 A is drawn by a filament of an electric bulb. Number of electrons passing through a cross section of the filament in 16 seconds would be

(a) 10^{20} (b) 10^{16} (c) 10^{18} (d) 10^{23}

18. The potential difference between two points in a circuit is measured by

(a) Ammeter (b) Voltmeter (c) Rheostat (d) Cell

19 On which of the following electrical components + sign and – sign are not marked

(a) Ammeter (b) Voltmeter (c) Resistor (d) Cell

20. When a person combs his hair, static electricity is sometimes generated due to

(a) Friction between comb and hair transfers electrons

(b) Induction between comb and hair

(c) Free electrons present in comb

(d) None of the above

Acknowledgement

1) Reference: NCERT Science Text Book, Ncert Exemplar and Google web page

2) Diagrams, etc are taken from NCERT Science Text Book, Ncert Exemplar and Google web page