Class VII : Science
Chapter 14 : ELECTRIC CURRENT AND ITS EFFECTS

1 Symbol of a cell in an electric circuit is represented by
(a) A longer line and a shorter line
(b) A longer and a shorter vertical parallel line
(c) A horizontal longer line and a vertical shorter line
(d) A vertical longer line and a horizontal shorter line

1 (b) Symbol of a cell in an electric circuit is represented by a longer and a shorter vertical parallel line.

2 Positive terminal of the cell is indicated by
(a) The shorter line
(b) The longer line
(c) Either of the two lines
(d) None of these

2 (b) Positive terminal of the cell is indicated by the longer line.

3 Lines connecting the various components represent
(a) Wires
(b) Terminals of the battery
(c) Battery
(d) Key

3 (a) Lines connecting the various components represent wires.

4 Battery is having
(a) Two or more cells connected to each other in any manner
(b) Positive terminal of one cell is connected to the positive terminal of the next cell
(c) Two or more cells connected in such a way that the positive terminal of one cell is connected to the negative terminal of the next
(d) Only one cell

4 (c) Battery is having two or more cells connected in such a way that the positive terminal of one cell is connected to the negative terminal of the next.

5 The number of pairs of parallel lines indicates
(a) The strength of the battery
(b) Life of the battery

(c) Number of cells connected in the battery
(d) All of these

5 (c) The number of pairs of parallel lines indicates the number of cells connected in the battery.

6 Switch can be connected
(a) To the positive terminal of the battery only
(b) Anywhere in the circuit
(c) To the negative terminal of the battery only
(d) If required only

6 (b) Switch can be connected anywhere in the circuit.

7 When the switch is in the ON position, the circuit from
(a) The positive terminal of the battery to the negative terminal is complete
(b) The circuit is said to be closed
(c) Current flows throughout the circuit instantaneously
(d) All of these

7 (d) When the switch is in the ON position, the circuit from the positive terminal of the battery to the negative terminal is complete and the circuit is said to be closed. Current flows throughout the circuit instantaneously.

8 When the switch is in the OFF position, the circuit is incomplete. It is said to be
(a) Open and the current does not flow in the circuit
(b) Closed and the current flows in the circuit
(c) Closed and the current does not flow through any part of the circuit
(d) Closed and the current does not flow through the bulb only

8 (a) When the switch is in the OFF position, the circuit is incomplete. It is said to be open and the current does not flow in the circuit.

9 The thin wire that glows when current passes through a bulb is called
(a) Tungsten
(b) Filament
(c) Fuse
(d) Terminal

9 (b)The thin wire that glows when current passes through a bulb is called the filament.

10 The bulb gets fused when
(a) The bulb becomes milky
(b) The filament is broken
(c) The glass has broken
(d) The bulb has become too old

10 (b) The bulb gets fused when the filament is broken.

11 It is unsafe
(a) To touch a lighted electric bulb
(b) To carry experiments with electric supply from the mains
(c) To use electric cells for experiments
(d) Both (a) and (b)

11 (d) It is unsafe to touch a lighted electric bulb because it is hot. One should not carry experiments with electric supply from the mains as it may give electric shocks.

12 A wire gets _____ when an electric current passes through it
(a) Weak
(b) Dull
(c) Hot
(d) Cold

12 (c) A wire gets hot when an electric current passes through it, due to heating effect of electricity.

13 A coil of wire present in electric heater is called
(a) An element
(b) A compound
(c) A mixture
(d) A solution

13 (a) A coil of wire present in electric heater is called an element.

14 The amount of heat produced in a wire depends on its
(a) Length only
(b) Thickness only
(c) Both length and thickness

(d) Material, length and thickness

14 (d) The amount of heat produced in a wire depends on its material, length and thickness.

15 The filament of an electric bulb glows on passage of current because

(a) It has got heated to a high temperature
(b) It is very thin
(c) A chemical reaction takes place in the bulb
(d) All of these

15 (a) The filament of an electric bulb glows on passage of current because it has got heated to a high temperature.

16 The ISI mark on an electric appliance ensures that

(a) The appliance is safe
(b) Wastage of energy is minimum
(c) Both (a) and (b)
(d) None of these

16 (c) The ISI mark on an electric appliance ensures that the appliance is safe and wastage of energy is minimum.

17 Electric fuses are made from the wires of some special material that

(a) Melts quickly and break when large electric currents are passed
(b) Gets overheated and cause fire
(c) Remains intact for several years
(d) Can withstand fluctuations in power supply

17 (a) Electric fuses are made from the wires of some special material that melts quickly and break when large electric currents are passed.

18 Excessive currents in electrical circuits are the consequence of

(a) Direct touching of wires
(b) Connecting many devices to a single socket
(c) Faulty wiring
(d) All of these

18 (d) Excessive currents in electrical circuits are the consequence of direct touching of wires, connecting many devices to a single socket or faulty wiring.

19 Short circuit takes place when
(a) The insulation on the wire has come off
(b) The wires come in direct contact with each other
(c) Excessive current is passed through the circuit
(d) All of these

19 (d) Short circuit takes place when the insulation on the wire has come off and the wires come in direct contact with each other or excessive current is passed through the circuit.

20 Miniature circuit breakers (MCBs)
(a) Also blows off on passage of excessive current
(b) Automatically switches when current in a circuit exceeds safe limit
(c) Do not help in maintaining safety
(d) All of these

20 (b) Miniature circuit breakers (MCBs) automatically switches when current in a circuit exceeds safe limit.

21 The needle of a compass
(a) Is a tiny magnet that rests in North – South direction
(b) Gets deflected when a magnet is brought close to it
(c) Gets deflected when current flows in a nearby wire
(d) All of these

21 (d) The needle of a compass is a tiny magnet that rests in North – South direction. It gets deflected when a magnet is brought close to it or current flows in a nearby wire.

22 Magnetic effect of the electric current
(a) Means that a wire behaves like a bar magnet on passage of electricity
(b) Is utilized to make magnets
(c) Was first observed by Hans Christian Oersted
(d) All are correct

22 (d) Magnetic effect of the electric current means that a wire would behave like a bar magnet on passage of electricity. It is utilized to make magnets. Magnetic effect of electric current was first observed by Hans Christian Oersted.

23 An electric bell has a _____ in it.
(a) Electromagnet
(b) Bar Magnet
(c) Horse shoe magnet
(d) Musical instrument

23 (a) An electric bell has a electromagnet in it.

24 A current carrying coil of an insulated wire wrapped around a piece of iron is called
(a) Electric component (b) Electromagnet
(b) Electric circuit (d) None of these

24 (b) A current carrying coil of an insulated wire wrapped around a piece of iron is called an electromagnet.

25 Sound is repeated in an electric bell because
(a) The circuit is completed and broken in quick succession
(b) Electro magnet is formed and lost in quick succession
(c) Both (a) and (b)
(d) None of these

25 (c) Sound is repeated in an electric bell because the circuit is completed and broken in quick succession, as an electro magnet is formed and lost in quick succession.

Class 7

L-14 ELECTRIC CURRENT AND ITS EFFECTS

Easy questions

1 ——— is a symbol for-

(a) Switch in OFF position.
(b) Switch in ON position.
(c) Wire.
(d) Cell.

Ans: (c)

Explanation: ——— is a symbol for wire.

2. ISI mark on electrical appliances ensures the-

(a) Safety of appliance.
(b) Minimum wastage of energy.
(c) Safety from getting shocks.
(d) All of them.

Ans: (d)

Explanation: It is advised to buy electrical appliances with ISI mark on them because ISI mark of Bureau of Indian Standards ensures our safety from shocks, safety of appliances as well as minimum wastage of energy.

Difficult question

1. Electric fuse contains wire that-

(a) Can melt on passage of electric current of low voltage.
(b) Cannot melt.
(c) Can melt only on passage of electric current of high voltage.
(d) Electric fuse does not contain wire.

Ans: (c)

Explanation: An electric fuse is used to prevent damages to electric circuits and fires. It contains a wire made up of a material having low melting point so that in case of passage of high voltage current, the wire will melt and break the circuit, thus preventing the damage to electrical appliances and possible fires.