

BRAIN INTERNATIONAL SCHOOL

Science Assignment

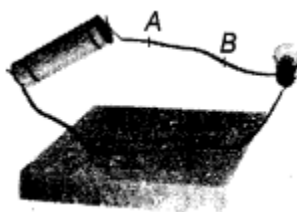
Class: VII

November'2024

Chapter -7: Electric current and its effects

1. Choose the correct option:

- (i) Circuit breaker device which can be used in place of fuse in domestic electric wiring is called
(a) DCB (b) MCD (c) MCB (d) BCM
- (ii) When an electric current flows through a copper wire AB s shown in figure, the wire



- (a) deflects a magnetic needle placed near it
(b) becomes red hot
(c) gives electric shock
(d) behaves like a fuse

2. In each of the following questions, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:

- a) Both A and R are true, and R is correct explanation of the assertion.
b) Both A and R are true, but R is not the correct explanation of the assertion.
c) A is true, but R is false.
d) Both assertion and reason are false.
- (i) Assertion (A): Bulb filament is made of tungsten.
Reason (R): The filament should have low melting point.
- (ii) Assertion (A): copper is widely used in electrical appliances.
Reason (R): it is a very good conductor of electricity.

3. Answer the following questions:

- Name two electric devices for each where
 - heating effect of current is used and
 - magnetic effect of current is used.
- Electromagnets are better than permanent magnets. Explain why
- Can we use the same fuse in a geyser and a television set? Explain

4. Distinguish between an open circuit and a closed circuit.
5. Draw the diagram of electric bell and explain its functioning.
6. State one measure to avoid overloading in an electrical circuit. Also mention the name given to a situation in which the live and the neutral wires accidentally come in contact. Describe the role of a safety device in this situation

Chapter-8: light

1. Choose the correct option:

1. If an object is placed at a distance of 0.5 m in front of a plane mirror, the distance between the object and the image formed by the mirror will be
 - (a) 2 m
 - (b) 1 m
 - (c) 0.5 m
 - (d) 0.25 m
2. A rainbow can be seen in the sky
 - (a) when the sun is in front of you
 - (b) when the sun is behind you
 - (c) when the sun is overhead
 - (d) only at the time of sunrise

2. In each of the following questions, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:

- a) Both A and R are true, and R is correct explanation of the assertion.
 - b) Both A and R are true, but R is not the correct explanation of the assertion.
 - c) A is true, but R is false.
 - d) Both assertion and reason are false.
- (i) Assertion (A): Virtual image can't be seen by human eye.
Reason (R): Virtual image is formed by diverging rays.
 - (ii) Assertion (A): When we see an object, the image formed on the retina is real and inverted.
Reason (R): If the magnification of a system is less than one, then the image formed is inverted.

2. Answer the following questions:

1. Briefly mention whether mirror change the direction of light.
2. Define lateral inversion with the help of an example.
3. A shopkeeper wanted to fix a mirror which will give him maximum view of his shop. What type of mirror should he use? Give reason.
4. State the characteristics of image formed by a concave mirror.

5. Assume, a person is standing in front of a plane mirror. The distance between the mirror and his image is 6 m. If the person moves 2 m towards the plane mirror, what would be the distance between the person and his image?
6. Explain dispersion of light with the help of well suitable diagram.