

Class Notes

Class: VII

**Topic: WORKSHEET ON CHAPTER 14 –
ELECTRIC CURRENT AND ITS EFFECTS**

Subject: SCIENCE

A) Tick the correct option:

1. **The coil of wire contained in an electric heater is known as:**

- (a) component**
- (b) element**
- (c) circuit**
- (d) spring**

2. **The amount of heat produced in a wire depends on:**

- (a) material**
- (b) length**
- (c) thickness**
- (d) all of these**

3. **A thin wire in a bulb is called as:**

- (a) filament**
- (b) coil**
- (c) element**
- (d) fuse wire**

4. **A glowing bulb becomes warm due to the:**

- (a) heating effect of current**
- (b) magnetic effect of current**
- (c) chemical effect of current**
- (d) none of the above**

5. **When electric current passes through a wire, it behave like a:**

- (a) battery**
- (b) temporary magnet**
- (c) fuse**
- (d) compass needle**

6. **Who discovered magnetic effect of current?**

- (a) H.C. Oersted**
- (b) Michael Faraday**
- (c) Ohm**
- (d) Fleming**

7. **The most suitable material for making the core of an electromagnet is:**

- (a) iron**
- (b) brass**

- (c) aluminium
- (d) steel

8. Electric bell works on the principle that:

- (a) Electric energy is converted into mechanical energy.
- (b) Mechanical energy is converted into sound energy.
- (c) Electrical energy is converted into sound energy.
- (d) Sound energy is converted into electrical energy.

9. The compact fluorescent electric lamp (CFL) has:

- (a) Nichrome filament
- (b) Chromium filament
- (c) Tungsten filament
- (d) No filament

10. Electromagnet loses its magnetic property when:

- (a) current is very high
- (b) current is switched off
- (c) Heat is increased
- (d) current is switched on

B) Complete the table by drawing the symbols of electrical components:

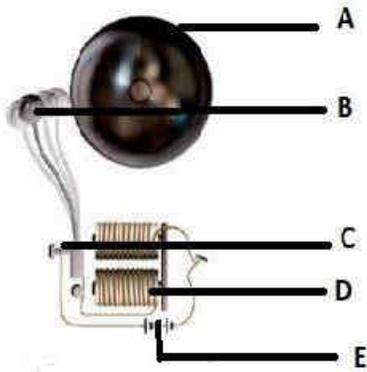
S.No.	Electric component	Symbol
1.	Electric cell 	<input type="text"/>
2.	Electric bulb 	<input type="text"/>
3.	Switch in 'ON' position 	<input type="text"/>
4.	Switch in 'OFF' position 	<input type="text"/>
5.	Battery 	<input type="text"/>
6.	Wire 	<input type="text"/>

C) Fill in the blanks with the appropriate word:

1. In the symbol of the electric cell, the longer line represents the _____ terminal and the thicker, shorter line represents the _____ terminal.
2. The bulb glows only when the switch is in the ___ position and the electric circuit is _____.
3. When the switch is in the 'OFF' position, the circuit is _____.
4. The ___ mark ensures that the appliance is safe and wastage of energy is _____.
5. _____ are switches which automatically turn off when current in a circuit exceeds the safe limit.
6. When electric current passes through a wire, it behaves like a _____.
7. Doctors use tiny _____ to take out small pieces of magnetic material that have accidentally fallen in the eye.
8. A current carrying coil of an insulated wire wrapped around a piece of iron is called an _____.
9. The combination of two or more cells is called a _____.
10. The electromagnet weakens the cell quickly if left _____.

D) Answer the following:

1. Write the reasons for the excessive flow of current in the circuit.
2. What are the advantages of CFL over bulb?
3. How is the heat produced by an electric current related to resistance, magnitude of the current and time?
4. Why is MCB preferred over fuse?
5. Answer the questions given based on the figure:
 - (a) Name the given diagram.
 - (b) Label the given diagram (A, B, C, D & E).



- (c) Write the effect on which the device works.
- (d) Define D Write the factors on which the strength of D depends.

Class Notes	
Class: VII	Topic: WORKSHEET based on chapter - Light
Subject: SCIENCE	

Multiple Choice Questions

<p>Question 1. Which of the following is used as a side view mirror? (a) Plane mirror (b) Concave mirror (c) Convex mirror (d) Convex lens</p>
<p>Question 2. White light is composed of (a) three colours (b) seven colours (c) five colours (d) eight colours</p>
<p>Question 3. A virtual image (a) can be formed on the screen (b) cannot be formed on the screen (c) is formed only by the plane mirror (d) is formed only by the convex mirror</p>
<p>Question 4. The image formed by spherical mirror is virtual. The mirror will be (a) concave (b) convex (c) either concave or convex (d) none of these</p>
<p>Question 5. The colored band of light obtained by dispersion of light is called (a) image (b) spectrum (c) convergence (d) scattering</p>
<p>Question 6 A diverging mirror is (a) a plane mirror (b) a convex mirror (c) a concave mirror (d) a shaving mirror</p>
<p>Question 7. When a white light passes through a prism,light deviates the least, while light deviates the most.</p>

Question 8.

The change of sides of an object and its mirror image is called

Question 9.

The image formed in a plane mirror is inverted.

Question 10.

Convex lens is in the middle than at the edges whereas concave lens is in the middle than at the edges.

Question 11.

A is a piece of any transparent material bound by two curved surfaces or by one curved and one plane surface.

Question 12. Mark 'T' if the statement is true and 'F' if it is false:

(a) We can obtain an enlarged and erect image by a convex mirror. (T/F)

(b) A concave lens always forms a virtual image. (T/F)

(c) When the reflecting surface of the spherical mirror is curved inwards, it is called concave mirror.

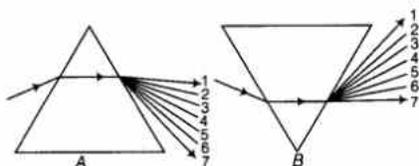
(d) Image formed by a plane mirror is usually real.

Question 13.

The distance between an object and a convex lens is changing. It is noticed that the size of the image formed on a screen is decreasing. Is the object moving in a direction towards the lens or away from it?

Question 14.

State the correct sequence (1-7) of colours in the spectrum formed by the prisms A and B shown in the figure.



Question 15.

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?

Question 16 Write the differences between:

a. Concave and convex mirror

b. Concave and convex lens

c. Real and virtual images

Question 17 Two different types of lenses are placed on a sheet of newspaper. How will you identify them without touching?

Question 18 Observe the figure related to plane mirror and answer the following questions:

a) Name the phenomena shown in the image formed in the plane mirror and define it.

(b) Other than the plane mirror where else you can see this phenomenon?

d.