

**Class Notes**

**Class: VIII**

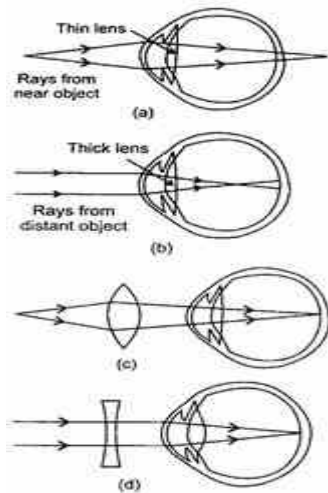
**Topic: LIGHT (WORKSHEET)**

**Subject: SCIENCE**

1. If two plane mirrors are inclined at an angle of  $90^\circ$  to each other, how many images of an object are seen?

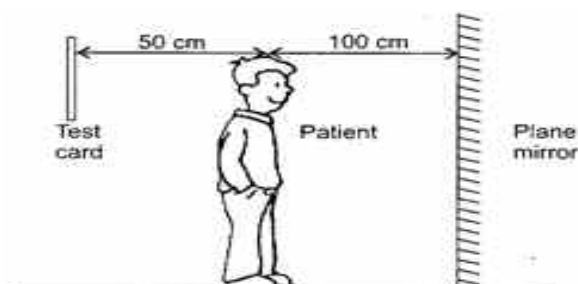
- A) Only 1
- B) Only 2
- C) Only 3
- D) Any of 1, 2, 3 or 4 depending on the position of observer and object.

2. Which of the following ray diagrams shown below shows respectively the short sightedness condition and its correctness by using a lens?



- A) (a) and (d)
- B) (a) and (c)
- C) (b) and (d)
- D) (b) and (c)

3. An optician holds a test card 50 cm behind a patient. The patient then looks in the plane mirror which is 100 cm away. How far away from the patient's eyes is the image of the test card ?



- A) 100 cm
- B) 150 cm
- C) 200 cm
- D) 250 cm

4. What is the nature of image formed on the retina of human eye of an object?

- A) Virtual and erect
- B) Virtual and inverted
- C) Real and erect
- D) Real and inverted

5. Identify the value of persistence of vision.

- A) 1/10th of a second
- B) 1/12th of a second
- C) 1/16th of a second
- D) 1/20th of a second

6. The characteristics of an eye disease are given below -

(i) Eye sight becomes foggy
-----------------------------

(ii) Eye lens becomes cloudy
------------------------------

(iii) There is a loss of vision
---------------------------------

In which of the following disease are the above characteristics observed?

- A) Myopia
- B) Presbyopia
- C) Hypermetropia
- D) Cataract

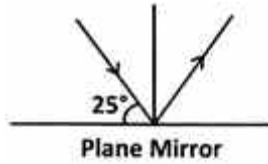
7. Which of the following is the requirement of nocturnal animals like owl and bat?

- A) Large cornea
- B) Large pupil
- C) Retina with large number of rods
- D) All of the above

8. There are 11 letters in the word EXAMINATION. How many letters of this word are not changed

when the word is seen in a plane mirror?

- A) 11
- B) 5
- C) 8
- D) 9



9. Observe the figure . Find the angle between the incident and the reflected ray.

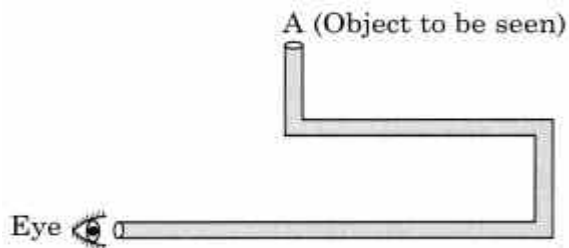
- A) 65°
- B) 90°
- C) 130°
- D) 25°

10. For a normal eye, in an adult, what is the least distance of distinct vision?

- A) 5 to 8 cm
- B) 10 to 15 cm
- C) 20 to 25 cm
- D) 30 to 35 cm

### ANSWER THE FOLLOWING QUESTIONS -

11. Boojho planned an activity to observe an object 'A' through pipes as shown in the given figure, so that he could see objects which he could not directly see.



- (a) How many mirrors should he use to see the object?
- (b) Indicate the positions of the mirrors in the figure.
- (c) What must be the angle with respect to the incident light at which he should place the mirrors?
- (d) Indicate the direction of rays in the figure.

(e) If any of the mirrors is removed, will he be able to see the object?

12. A student has difficulty reading the blackboard while sitting in the last row. What could be the defect the child is suffering from? How can it be corrected?

13. Boojho while waving his hand very fast in front of his eyes, observes that his fingers appear blurred. What could be the reason for it?

14. Eyes of the nocturnal birds have large cornea and a large pupil. How does this structure help them?

15. What are rods and cones in the retina of an eye?

16. Explain why, an owl can see well in the night but not during the day whereas an eagle can see well during day but not in the night.

17. Draw the ray diagram to show image formation in plane mirror.

18. Look at the figure. Can the image of the child in it be obtained on a screen?



19. Explain the process which enables us to perceive motion in a cartoon film.

20. FILL IN THE BLANKS:

a. We use \_\_\_\_\_ to see images of ourselves or other objects.

b. The line drawn perpendicular to the surface of the mirror at the point of incidence is termed as the \_\_\_\_\_.

c. The angle of incidence is \_\_\_\_\_ to the angle of reflection.

d. The exposed surface of the eyeball has a transparent covering called \_\_\_\_\_.

e. \_\_\_\_\_ is also called nearsightedness and shortsightedness.



## WORKSHEET

Class: 8

**CHAPTER 14- CHEMICAL EFFECTS OF ELECTRIC CURRENT**

Subject: SCIENCE

**NOTE:- THIS IS FOR YOUR PRACTICE**

### **MULTIPLE CHOICE QUESTIONS**

1. Which of the following is a bad conductor of electricity?

- (a) Distilled water
- (b) Silver nitrate solution
- (c) Sulphuric acid
- (d) Copper sulphate solution

2. Electroplating is based on-

- (a) heating effect of electricity
- (b) chemical effect of electricity
- (c) physical effect of electricity
- (d) magnetic effect of electricity

3. Which of the following is not used for electroplating metal articles?

- (a) Nickel
- (b) Silver
- (c) Chromium
- (d) Sodium

4. When electrodes are immersed in water and electricity is passed, the bubbles formed on the positive terminal is actually \_\_\_\_\_ gas.

- (a) Hydrogen
- (b) Carbon dioxide
- (c) Oxygen
- (d) Nitrogen

5. Why do we add little dilute sulphuric acid to copper sulphate solution during electroplating?

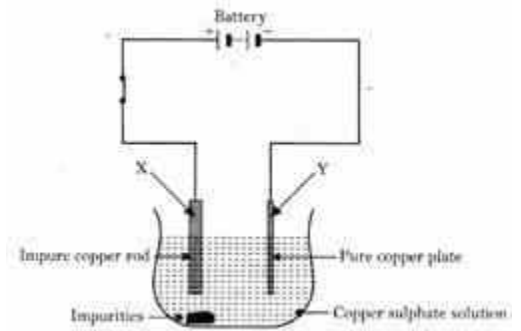
- (a) To increase acidity
- (b) To increase conductivity
- (c) So that the colour becomes more prominent
- (d) To burn copper sulphate

6. The process of depositing a layer of any desired metal on another material by means of electricity is called \_\_\_\_\_.

- (a) Electric plating
- (b) Electroplating
- (c) Electric depositing
- (d) None of the above

7. In electrolysis, salt solution breaks up into positively and negatively charged particles called-

- A) Electrodes
- B) Electrons
- C) Ions
- D) Insulator



8. Look at the following figure and choose the correct option.

- A) X represents anode, Y represents cathode
- B) X represents cathode, Y represents anode
- C) Both represent anode
- D) Both represent cathode

9. Which one of the following observations can be observed when electric current is passed through an electrolyte in which two electrodes are present?

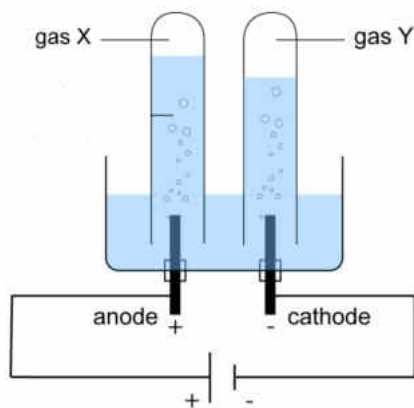
- a) Bubbles of gas may be formed on the electrodes.
- b) Deposits of metal may be seen on electrodes.
- c) Change in the colour of the solution may take place.
- d) All the above

10. Which of the following circuits gives the correct way of connecting an LED to light it up?

- A)
- B)
- C)
- D)

**DIAGRAM BASED QUESTION**

Observe the diagram & answer the questions given below.



### ELECTROLYSIS OF WATER

- Which gas will be released at anode & cathode on electrolysis of water
- Can we use distilled water for electrolysis ? Why?
- What can be added to water to make it more conducting?

#### FILL UPS

- A cation has \_\_\_\_\_ charge.
- Distilled water when mixed with salts becomes a \_\_\_\_\_ conductor of electricity.
- Light emitting diodes (LED) glow even when a \_\_\_\_\_ electric current flows through it.
- A coating of \_\_\_\_\_ is deposited on iron to protect it from corrosion and formation of rust.

#### TRUE /FALSE

- Most liquids that conduct electricity are solutions of acids, bases and salts.
- An electric bulb glows due to chemical effect of electricity.

#### SUBJECTIVE QUESTIONS-

- What happens when electric current is passed through the copper sulphate solution?
- Why is chromium used for electroplating? Why the objects having chromium plating are not made of chromium itself?
- Current does not flow in a circuit if there is a gap between the two wires. Does it indicate that air is a poor conductor of electricity? Does air never conduct electricity? Explain.
- Show the conductivity of water with the help of an activity.
- Suppose you want to deposit silver on an iron spoon using silver nitrate as electrolyte. Which terminal of the battery you should connect the spoon? What material should the other electrode be made of?
- Why does a potato turn green on passing current? Around which terminal greenish patch is observed?
- Yakub made a circuit as shown in the figure. He observed that the bulb did not glow but on bringing a compass needle near it, it shows deflection. He was quite confused that if current is flowing through the circuit then why the bulb is not glowing. Meanwhile his friend Sourav arrived and suggested him to add one more cell in the circuit. The bulb, then started glowing.





