



# BURARI PUBLIC SCHOOL

a venture with **UNIQUE**

PT- IV ASSIGNMENT (2024-25)

CLASS: VII

SUBJECT- SCIENCE Date / /

Time: 1 Hr.

M.M. 20

Name: ..... Roll No..... T. sign.....

## Instructions:

- This paper consists of 4 sections A, B, C & D.
- All questions are compulsory.

## SECTION-A

### 1) Choose the most appropriate answer:

4x1/2=2

1. What is electric current?

- (a) The flow of water
- (b) The flow of electric charge
- (c) The flow of heat
- (d) The flow of light

2. Which of the following is an example of the magnetic effect of electric current?

- (a) A light bulb glowing when connected to a battery.
- (b) A fan spinning when current passes through it.
- (c) A compass needle moving when near a current-carrying wire.
- (d) A wire heating up when current flows through it.

3. Which type of mirror is used in a vehicle's side-view mirror?

- (a) Concave Mirror
- (b) Convex Mirror
- (c) Plane Mirror
- (d) Cylindrical Mirror

4. What is formed when light is reflected from a smooth surface?

- (a) Diffuse reflection
- (b) Regular reflection
- (c) Absorption
- (d) Refraction

### 2) Give answer in one word for the following questions: (Do any 2)

4x1/2=2

- a. What do we call the image that can be obtained on a screen?
- b. What type of lens is also called diverging lens?
- c. On which principle does an electric bell work?

## SECTION-B

### 3) Answer the following in brief: (Do any 2)

2x2=4

- a. Define resistance.
- b. What is overloading of electric current?
- c. Define electromagnets.

**4) Case study:****3x1=3**

A group of students is conducting an experiment to observe the heating effect of an electric current. They set up a simple circuit with a battery, a piece of copper wire, and a small bulb. They notice that when the circuit is closed, the bulb lights up, and the wire becomes warm. However, after a few minutes, the bulb starts to dim.

**A. Why does the wire get warm when current flows through it?**

- a) The wire resists the current and gets heated
- b) The wire absorbs heat from the battery
- c) The wire is made of copper

**B. Why does the bulb dim after some time?**

- a) The battery has drained
- b) The wire is too hot
- c) The current is not flowing properly

**C. The battery can lose charge over time. (True/False)****SECTION-C****5) Distinguish between: (Do any 1)****1x2=2**

- a. Refraction and Reflection
- b. Conductors and Insulators

**6) Assertion-Reason based questions:****2x1=2**

The question consists of two statements as Assertion (**A**) and Reason (**R**). While answering the question, you are required to choose any one of the four choices:

- i. Both A and R are correct and R is the **correct** explanation of A.
- ii. Both A and R are correct and R is the **incorrect** explanation of A.
- iii. A is **correct** but R is **incorrect**.
- iv. Both A and R are **incorrect**.

**1. Assertion (A):** Concave and convex mirrors are called spherical mirrors.

**Reason (R):** These mirrors have curved reflecting surfaces.

**2. Assertion (A):** Electric bell works on the principle of chemical effect of current.

**Reason (R):** The flow of heat is called electric current.

**SECTION-D****7) Answer the following in detail: (Do any 2)****2x1.5=3**

- a. What is Newton's disc? What does it prove?
- b. Why does a rainbow appear in the sky after rain?

**8) Explain the uses of concave and convex mirrors.****2x1=2**