

## 1.Light



### EVALUATION

#### I. Choose the correct option

- Light travels only in a \_\_\_\_\_. It is because of this property that \_\_\_\_\_ are formed
  - curved line, shadows
  - straight line, shadows
  - straight line, reflection
  - curved line and then straight line, shadows
- Light that hits a mirror gets \_\_\_\_\_
  - Transmitted
  - Reflected
  - Absorbed
  - Refracted
- \_\_\_\_\_ Surface reflects the light well.
  - water
  - compact disc
  - mirror
  - stone
- Light is a form of \_\_\_\_\_
  - matter
  - energy
  - medium
  - particle
- Choose the translucent substance from the following
  - glass
  - wood
  - water
  - Clouds
- Reflection occurs , when the light
  - about to reach a surface
  - approaches a surface
  - passes through a surface
  - None of these
- Which of the following is the best reflector of light?
  - plastic plate
  - plane mirror
  - wall
  - paper
- Sivarajan placed a meter stick in the playground at 7.00 am in the morning. How will the shadow of the stick at noon look in comparison to the one in the morning
  - There will be no shadow
  - The shadow will be longer and on the opposite side as the sun
  - The shadow will be shorter and on the same side as the sun
  - The shadow will be shorter
- The image formed by a pinhole camera is inverted because,
  - light travels in straight lines
  - light rays become laterally inverted as they pass through a pinhole camera
  - light rays pass through the pinhole
  - light rays get reflected
- Which of the following facts explain how shadows are formed?
  - Light travels in straight lines
  - Opaque bodies do not allow light to pass through them
  - Reflection occurs at a smooth surfaces like mirrors
  - Lateral inversion happens
    - both A and B
    - both A and D
    - both B and C
    - only A

#### II. Fill in the blanks

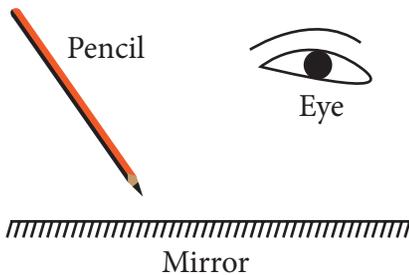
- A \_\_\_\_\_ reflection helps us to see the objects
- The light ray gets \_\_\_\_\_ when it falls on any polished surface.

### III. Say TRUE or FALSE

- We see a book because it reflects the light that falls on its surface
- The image formed in a pinhole camera is always inverted
- The image formed in a pinhole camera is always the same size as the object
- A plane mirror is opaque
- A shadow is formed on the same side of the object as the source of light.

### V. Answer the following questions in short

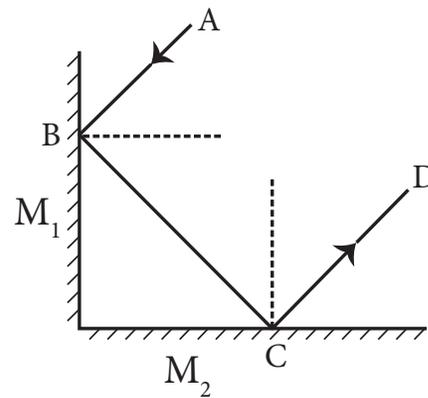
- With the help of a diagram, state the laws of reflection
- Figure shows a pencil placed above a mirror



- Draw its image formed by the mirror
  - Show how light rays from the object are reflected at the mirror to form the image for the eye.
- A person is looking at the image of a tree in a mirror placed 3.5 m in front of him. Given that the tree is at 0.5 m behind his eyes. Find the distance between the image of the tree and his eyes. What are needed to see an object?
  - What are the parts of shadow?
  - What are the properties of shadow?
  - Write the items given here in the correct column (Stars, brick walls, plants, mirror, planets, electric light bulb, candle)

Sources of Light	Objects that reflect light

- Draw a diagram of a pin hole camera showing the rays of light passing between the Object and its image
- Two plane mirrors  $M_1$  and  $M_2$  are placed perpendicular with each other, as shown in figure. The ray AB makes an angle  $39^\circ$  with the plane mirror  $M_1$ , then



- The reflected rays are \_\_\_\_\_, \_\_\_\_\_
- The incident rays are \_\_\_\_\_, \_\_\_\_\_
- What is the angle of incidence corresponding to the ray BC?
- What is the angle of reflection corresponding to the ray CD
- What is reflection of light?
- If a ray of light is falling on a plane mirror at an angle of  $50^\circ$  is formed, what will be the angle of reflection?
- What is a shadow? What things are necessary for the formation of a shadow?

### VI. Answer the following questions in detail

- What are the difference between luminous and non-luminous objects? Give two examples of each.
- Differentiate between a reflection and a shadow
- What are the characteristics of an image formed in a plane mirror?
- Define the following terms
  - Incident ray
  - Reflected ray
  - Normal
  - Angle of incidence

8. Compare the images formed by plane mirror with that by pinhole camera

## 2.Universe and Space



### EVALUATION

#### I. Choose the correct option

4. The galaxy containing young and hot stars is  
a. elliptical galaxy    b. irregular galaxy  
c. cluster                d. spiral galaxy

#### II. Fill in the blanks.

5. \_\_\_\_\_ is the first satellite launched by India

#### III True or False – If False give the correct answer

4. Our Milky Way galaxy is identified as an elliptical galaxy.

#### V Analogy

1. Older stars : elliptical galaxies :: younger stars :-----  
2. Nearest galaxy : Andromeda :: Nearest star :-----.

#### VI Very short answer

6. The galaxy which contains abundant amount of gas and dust is \_\_\_\_\_

#### VII Short Answer Questions

2. Name the four different types of galaxies.

## 3.Polymer Chemistry



### EVALUATION

1. The first man-made fibre is \_\_\_\_\_  
a) Nylon                b) Polyester  
c) Rayon                d) Cotton
2. Which of the following is the strongest?  
\_\_\_\_\_  
a) Rayon                b) Nylon  
c) Acrylic                d) Polyester

3. When you place a natural fibre in a flame it \_\_\_\_\_  
a) melts                b) burns  
c) gets nothing        d) explodes
4. A synthetic fibre which has similar properties to wool is \_\_\_\_\_  
a)Nylon                b) Polyester  
c) Acrylic                d) PVC
5. A good application of plastic is the use of \_\_\_\_\_  
a) Blood bags        b) Plastic cutlery  
c) Plastic straws     d) Plastic carry bag

#### II. Fill in The lanks

3. A \_\_\_\_\_ is a long chain made up of many repeated small units called monomers.  
4. A natural fibre is called \_\_\_\_\_  
5. A natural fibre obtained by boiling cocoons is called \_\_\_\_\_

#### III. True or False

2. Refuse (avoid) is the best way to manage plastic.  
3. It is good to wear clothes made of synthetic fibres while cooking.  
5. Cotton is a natural polymer.

#### VI. Analogy

1. Cotton: natural : Polyester: \_\_\_\_\_

#### VII. Assertion and Reason

3. A: It is good to avoid plastics.  
R: Plastics end up polluting the environment.

#### IX. Very Short Answer

1. What is the chemical name of the polymers that make up cotton?  
3. It is not advisable to burn plastic and synthetic fabrics. Why?  
7. What is the 5 R principle?

#### XI. Long Answer

2. Suggest safe methods of disposing plastics.

## XII. HOTS

1. The Tamil Nadu Government has banned the use of one-time use throwaway plastics. Why do you think this is important?
2. A plastic bag dumped in the soil stays without breaking down for 500 years. If a new generation starts in every 30 years, how many generations would it take to see the plastic bag finally broken down?

### 4. Chemistry in Daily Life



#### EVALUATION

##### I Choose the correct answers

3. \_\_\_\_\_ are that neutralize stomach acid.  
a. Antacid                      b. Antipyretic  
c. Analgesic                    d. Antihistamines
5. Which is the hottest part in the flame of candle \_\_\_\_\_  
a. Blue                          b. Yellow  
c. Black                         d. Wax part

##### II. Fill in the blanks.

2. World ORS Day is \_\_\_\_\_
3. Combustion is a chemical reaction in which \_\_\_\_\_ and substance react with \_\_\_\_\_

##### III True or False – If False give the correct answer

3. All fuels form flame.
4. Oxygen is necessary for combustion
5. Burning wood and coal causes pollution of air.

##### V Analogy

1. Inner zone of flame : :-----, outer zone of flame : :-----

##### VI Very short answer

6. How many types of combustion are there?

##### VII Short Answer Questions

3. What is ignition temperature?

## VIII Answer in Detail

2. Make labeled diagram of a candle flame.

### 5. Animals in Daily Life



#### EVALUATION

##### I Choose the correct answers

1. \_\_\_\_\_ is the daily essential product which is obtained from cattle.  
a) Egg                                      b) Milk  
c) Both of them                         d) None of them
2. Eggs are rich in \_\_\_\_\_.  
a) Protein                                 b) Carbohydrate  
c) Fat                                        d) Acid
3. Which parts of the goat and sheep is used for manufacturing clothes.  
a) Leg                                        b) Hand  
c) Hair                                        d) Head

##### II. Fill in the blanks.

1. Proteins and \_\_\_\_\_ is rich in milk.
2. \_\_\_\_\_ is extracted from bee hives.
4. \_\_\_\_\_ is the strongest natural fibre.

##### III. True or False – If False give the correct answer

1. Animals are the greatest gift of nature.

##### IV. Match the following

1. Cocoons	-	Meat
2. Peace silk	-	Poultry
3. Broilers	-	Silk worm
4. Sweet Liquid	-	Andhra Pradesh
5. Goat	-	Honey

##### VI. Very short answer

1. Write about any two dairy products.
2. What are the two types of fibres that are obtained from animals?
3. What is shearing?

## VII. Short Answer Questions

1. What are the characteristics of wool? Give any three.
3. What are the common diseases that are found in Poultry?

## VIII. Answer in Detail

3. What are the major steps involved in this wool factory.
4. Write the uses of the wool.

## IX. HOTS

2. Honey is recommended for all. Why? What is its significance.

## X. Assertion and Reasoning

**1. Assertion :** Wool is the fibre derived from the fur of animals.

**Reason :** Animals like goat, Yak, Alpaca and rabbit yields wool.

- a. Both Assertion and reasoning is correct
- b. Assertion is correct but reason in wrong
- c. Assertion is wrong but reason is correct
- d. Assertion and Reason are incorrect



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