

# UNIQUE STUDY POINT

By Sumeet Sahu

[www.uniquestudyonline.com](http://www.uniquestudyonline.com)

Unique Study Point, Amitesh Nagar, Indore, MP | Contact: 8103405051

<b>Class:</b> VI	<b>Subject:</b> Science	<b>Session:</b> 2025-26
<b>Chapter:</b> 06 - Materials Around Us	<b>Time:</b> 1½ Hours	<b>Max. Marks:</b> 40

## General Instructions:

1. All questions are compulsory.
2. This question paper contains 20 questions divided into five sections A, B, C, D and E.
3. Section A contains 10 MCQs of 1 mark each.
4. Section B contains 4 questions of 2 marks each.
5. Section C contains 3 questions of 3 marks each.
6. Section D contains 1 question of 5 marks.
7. Section E contains 2 Case Study Based questions of 4 marks each.

## SECTION A - Multiple Choice Questions (1 mark each)

1. Any substance that is used to create an object is referred to as:
  - (a) Matter
  - (b) Material
  - (c) Element
  - (d) Compound
2. Materials that typically have shiny surfaces are said to have:
  - (a) Opaque appearance
  - (b) Lustrous appearance
  - (c) Translucent appearance
  - (d) Transparent appearance
3. Which of the following materials is transparent?
  - (a) Wood
  - (b) Frosted glass
  - (c) Clear glass
  - (d) Cardboard
4. Materials through which objects can be seen, but not clearly, are known as:
  - (a) Transparent
  - (b) Opaque
  - (c) Translucent
  - (d) Lustrous
5. Which of the following is soluble in water?

- (a) Sand
- (b) Chalk powder
- (c) Sugar
- (d) Sawdust

6. Anything that occupies space and has mass is called:

- (a) Material
- (b) Matter
- (c) Volume
- (d) Substance

7. The SI unit of mass is:

- (a) Gram
- (b) Litre
- (c) Kilogram
- (d) Millilitre

8. The space occupied by matter is its:

- (a) Mass
- (b) Weight
- (c) Volume
- (d) Density

9. Which of the following is an example of non-lustrous material?

- (a) Iron
- (b) Copper
- (c) Paper
- (d) Aluminium

10. The method of arranging objects into groups is called:

- (a) Separation
- (b) Classification
- (c) Division
- (d) Organization

### SECTION B - Short Answer Questions (2 marks each)

11. Differentiate between lustrous and non-lustrous materials with two examples each.

12. Why cannot a tumbler made of cloth be used for storing water? Explain.

13. What is the difference between transparent and translucent materials? Give one example of each.

14. Define matter. What are the two properties possessed by all matter?

### SECTION C - Short Answer Questions (3 marks each)

15. Explain the difference between hard and soft materials. Give three examples of each.

**16.** What do you understand by solubility? Explain with an activity how you can test whether a material is soluble in water or not.

**17.** Why are different materials used for making balls for various sports? Explain by giving examples.

#### SECTION D - Long Answer Question (5 marks)

**18.** What is classification? Why is it important to classify materials based on their properties? Explain with suitable examples how materials can be classified based on their different properties.

#### SECTION E - Case Study Based Questions (4 marks each)

##### 19. Case Study 1:

Ghulan was sweating when he came home after playing in the evening. He was feeling tired and thirsty. Ghulan's mother mixed a spoonful of sugar, a pinch of salt and some lemon juice in a glass tumbler of water and offered him this shikanji (lemonade) to drink. Ghulan noticed that while his mother was mixing sugar and salt in water, the salt and the sugar disappeared after a while.

Based on the above case study, answer the following questions:

- (a) What happened to sugar and salt when mixed in water? (1 mark)
- (b) What property of materials is demonstrated in this case? (1 mark)
- (c) Name two other materials that show similar behavior when mixed with water. (1 mark)
- (d) Why is water considered important for the functioning of our body? (1 mark)

##### 20. Case Study 2:

The earliest pottery found in the Indian subcontinent dates back to 7,000 to 8,000 years in the Ganga plains (Lahuradewa) and in Baluchistan (Mehrgarh). During the Sindhu-Sarasvati Civilisation (2600–1900 BCE), pottery had a bright red surface painted with black-coloured designs displaying geometric patterns, and aquatic and terrestrial animals. The clay used for making pots, dishes, bowls and other items was carefully selected and cleaned, sieved, kneaded, turned over a wheel and finally baked in kilns (baked clay is called 'terracotta'). Pots were used for various purposes, from cooking to storage of food grains, oil, ghee, and so on.

Based on the above case study, answer the following questions:

- (a) What material was primarily used for making pottery in ancient India? (1 mark)
- (b) What is baked clay called? (1 mark)
- (c) List two uses of pottery in ancient civilisation. (1 mark)
- (d) Why was clay suitable for making cooking and storage containers? (1 mark)

---

Made with ♥ by Sumeet Sahu

Unique Study Point, Amitesh Nagar, Indore, MP

Website: [uniquestudyonline.com](http://uniquestudyonline.com)



**SECTION A - Answers to MCQs****1. (b) Material**

Any substance that is used to create an object is referred to as material. Materials are types of matter used in the creation or making of objects.

**2. (b) Lustrous appearance**

Materials that typically have shiny surfaces are said to have a lustrous appearance. Such materials with lustre are usually metals like iron, copper, zinc, aluminium, and gold.

**3. (c) Clear glass**

Clear glass is transparent. The materials through which things can be seen clearly are called transparent. Other examples include water, air, and cellophane paper.

**4. (c) Translucent**

Materials through which objects can be seen, but not clearly, are known as translucent. Examples include butter paper and frosted glass.

**5. (c) Sugar**

Sugar is soluble in water. When mixed in water, sugar completely disappears or dissolves. Sand, chalk powder, and sawdust are insoluble in water.

**6. (b) Matter**

Anything that occupies space and has mass is called matter. All materials around us are examples of matter.

**7. (c) Kilogram**

Kilogram is the unit of mass in the International System of Units (SI). It is abbreviated as 'kg'.

**8. (c) Volume**

The space occupied by matter is its volume. The units to measure volume are litre (L) and millilitre (mL). The SI unit for volume is cubic metre (m<sup>3</sup>).

**9. (c) Paper**

Paper is non-lustrous material. Non-lustrous materials are those that do not have a shiny surface. Other examples include wood, rubber, and jute.

**10. (b) Classification**

The method of arranging objects into groups is called classification. Objects can be classified on the basis of a common property that they have.

**SECTION B - Answers to Short Answer Questions****11.**

**Lustrous Materials:** Materials that have shiny surfaces are called lustrous materials. They reflect light from their surfaces.

Examples: Iron, Copper, Aluminium, Gold

**Non-lustrous Materials:** Materials that do not have shiny surfaces are called non-lustrous materials. They do not reflect much light.

Examples: Paper, Wood, Rubber, Chalk

12.

A tumbler made of cloth cannot be used for storing water because cloth is porous and has tiny holes or gaps in its structure. Water will seep through these gaps and leak out. The materials that are required to make a tumbler should be capable of holding water without leakage. Therefore, we need materials like glass, plastic, or metal which are non-porous and can contain water properly.

13.

**Transparent Materials:** Materials through which things can be seen clearly are called transparent. Light passes through them completely.

Example: Clear glass, water

**Translucent Materials:** Materials through which objects can be seen, but not clearly, are known as translucent. Light passes through them partially.

Example: Frosted glass, butter paper

14.

**Matter:** Anything that occupies space and has mass is called matter.

**Two properties possessed by all matter:**

1. **Mass:** All matter has mass. The mass gives the quantity of matter.
2. **Volume:** All matter occupies space. The space occupied by matter is its volume.

## SECTION C - Answers to Short Answer Questions

15.

**Hard Materials:** Materials which are difficult to compress or scratch are called hard materials. They maintain their shape under pressure.

**Examples of Hard Materials:**

1. Iron
2. Stone
3. Wood

**Soft Materials:** Materials which can be compressed or scratched easily are called soft materials. They change shape under pressure.

**Examples of Soft Materials:**

1. Sponge
2. Rubber

### 3. Cotton

Note: These properties are relative in nature. For example, rubber is harder than sponge but softer than iron.

## 16.

**Solubility:** Solubility is the property of a material that determines whether it can dissolve in water or not. Materials that completely disappear when mixed in water are said to be soluble in water.

### Activity to test solubility:

**Materials Required:** Glass tumblers, water, test materials (sugar, salt, sand, chalk powder)

### Procedure:

1. Take glass tumblers and fill them about two-thirds with water
2. Put a teaspoonful of the test material in each glass tumbler
3. Stir well the contents of each glass tumbler using a spoon
4. Wait for a few minutes and observe what happens

### Observation:

Materials like sugar and salt will completely disappear in water (soluble)

Materials like sand and chalk powder will not disappear even after stirring (insoluble)

**Conclusion:** Materials that dissolve completely in water are soluble, while those that remain visible are insoluble.

## 17.

Different materials are used for making balls for various sports because each sport requires specific properties in the ball for optimal performance:

- 1. Tennis Ball:** Made of rubber covered with felt. It needs to be lightweight and have high bounce for quick movements and rallies on the court.
- 2. Cricket Ball:** Made of cork core covered with leather. It needs to be hard and heavy to travel long distances when hit and to maintain its shape during fast bowling.
- 3. Hand Exercise Ball:** Made of soft foam or gel. It needs to be soft and compressible to strengthen hand muscles without causing injury.

The choice of material depends on factors such as:

- Bounce required for the game
- Hardness needed for the sport
- Weight suitable for the players
- Durability required for the game conditions

## SECTION D - Answer to Long Answer Question

## 18.

**Classification:** The method of arranging objects or materials into groups based on their common properties is called classification.

## Importance of Classifying Materials:

1. **Easy Organization:** Classification helps in organizing materials systematically, making them easy to locate and use
2. **Understanding Properties:** It helps us study and observe patterns in the properties of materials
3. **Appropriate Selection:** Classification makes it easier to select the right material for a specific purpose
4. **Practical Applications:** It helps in storage and management of materials in daily life (like in kitchen, shop, pharmacy)
5. **Scientific Study:** Classification forms the basis for scientific study of materials and their behavior

## Classification Based on Different Properties:

### 1. Based on Appearance (Lustre):

- Lustrous materials: Iron, copper, gold, silver
- Non-lustrous materials: Wood, paper, cloth

### 2. Based on Hardness:

- Hard materials: Stone, iron, glass
- Soft materials: Sponge, cotton, rubber

### 3. Based on Transparency:

- Transparent materials: Clear glass, water
- Translucent materials: Frosted glass, butter paper
- Opaque materials: Wood, metal, cardboard

### 4. Based on Solubility in Water:

- Soluble materials: Sugar, salt
- Insoluble materials: Sand, sawdust, chalk powder

We choose a material to make an object depending on its properties and the purpose for which the object is to be used. For example, we use transparent glass for windows so that light can pass through, but we use opaque wood for doors to provide privacy.

## SECTION E - Answers to Case Study Based Questions

19.

(a) When sugar and salt were mixed in water, they dissolved completely and disappeared. This means they are soluble in water.

(b) The property demonstrated is **solubility**. It is the ability of a material to dissolve in water.

(c) Two other materials that show similar behavior when mixed with water are:

1. Glucose
2. Common salt (sodium chloride)

(d) Water is important for the functioning of our body because it can dissolve a large number of materials. This property helps in transporting nutrients, removing waste products, and facilitating various chemical reactions in our body.

20.

**(a)** The material primarily used for making pottery in ancient India was **clay**.

**(b)** Baked clay is called **terracotta**.

**(c)** Two uses of pottery in ancient civilisation were:

1. Cooking food
2. Storage of food grains, oil, ghee

**(d)** Clay was suitable for making cooking and storage containers because:

- It could be easily molded into different shapes
- When baked in kilns, it became hard and durable
- It was waterproof and could hold liquids and grains
- It was readily available and non-toxic
- It could withstand heat, making it suitable for cooking purposes

---

Made with ♥ by Sumeet Sahu

Unique Study Point, Amitesh Nagar, Indore, MP

Website: [uniquestudyonline.com](http://uniquestudyonline.com)