

# TEXTBOOK ANSWERS

## Objective Type Questions

### 1. Name the following:

- (a) Living things and Non-living things
- (b) Gold and Silver
- (c) Hardness
- (d) Miscible: Alcohol, Immiscible: Oil
- (e) Glass window, glass tumbler
- (f) Water and Glycerine
- (g) Frosted Glass and Butter Paper

### 2. Fill in the following blanks with suitable words:

- (a) immiscible
- (b) miscible
- (c) opaque
- (d) translucent
- (e) mass

### 3. State whether the following statements are true or false:

- (a) True
- (b) True
- (c) False
- (d) False
- (e) False

## Subjective Type Questions

### Short Answer Type Questions

1. Containers in sweet shops are made of transparent glass so that customers can clearly see the sweets inside without opening the containers. This helps in easy selection and maintaining hygiene by preventing direct contact with the sweets.
2. The soluble and insoluble substances in water are classified as follows:

| Soluble in water       | Insoluble in water |
|------------------------|--------------------|
| Potassium permanganate | Groundnut oil      |
| Alum                   | Wax                |
| Sugar                  | Sand               |
| Oxygen                 | Petrol             |
| Copper sulphate        | Nitrogen           |
|                        | Methane            |

### 3. The classification of materials is as follows:

| Natural materials | Man-made materials |
|-------------------|--------------------|
| Water             | Nylon              |
| Coal              | Paper              |
| Wool              | Plastic            |
| Gold              | Glass              |
| Wood              | Steel              |

4. The objects made from different materials are as follows:

- (a) Glass – Window panes, Mirrors
- (b) Iron – Gates, Nails
- (c) Copper – Electrical wires, Utensils
- (d) Aluminium – Foil, Cans
- (e) Wood – Furniture, Doors
- (f) Cotton – Clothes, Cushions
- (g) Leather – Shoes, Bags
- (h) Paper – Books, Newspapers

5. The classification of materials based on transparency is as follows:

| Transparent materials | Translucent materials | Opaque materials |
|-----------------------|-----------------------|------------------|
| Clear glass           | Butter paper          | Cardboard        |
| Water                 | Ground glass          | Brick wall       |
| Air                   | Frosted glass         | Aluminium sheet  |
| Cellophane paper      |                       |                  |

6. The classification of materials based on hardness is as follows:

| Hard materials | Soft materials |
|----------------|----------------|
| Diamond        | Chalk, Cotton  |
| Wood           | Wax            |
| Bone           | Clay           |
| Iron           | Sponge         |
|                | Feathers       |

7. The following answers are given below:

| Column I                          | Column II        |
|-----------------------------------|------------------|
| (a) Shiny appearance              | (iv) Lustre      |
| (b) Mixes in water                | (i) Soluble      |
| (c) Can see through it clearly    | (v) Transparent  |
| (d) Occupies space and has mass   | (iii) Matter     |
| (e) Cannot see clearly through it | (ii) Translucent |

### Long Answer Type Questions

1. Oxygen gas dissolved in water is essential for the survival of aquatic animals. Fishes and other aquatic organisms extract dissolved oxygen from water through their gills for respiration. Without sufficient oxygen, aquatic life cannot survive.

Carbon dioxide gas dissolved in water is beneficial to aquatic plants. It is used in the process of photosynthesis, where plants convert carbon dioxide and sunlight into oxygen and food. This helps maintain the oxygen level in water and supports the aquatic ecosystem.

2. (a) A material is a substance used to make objects based on its properties. Materials can be natural or man-made. Examples of materials include:
- (i) **Wood:** Used to make furniture.
  - (ii) **Glass:** Used for making mirrors and windows.
  - (iii) **Iron:** Used for making gates and tools.
  - (iv) **Cotton:** Used for making clothes.
  - (v) **Plastic:** Used for making bottles and containers.
- (b) • **Wooden objects:** Cricket bat, Table
- **Metal objects:** Pressure cooker, One rupee coin, Screw
  - **Glass objects:** Beaker, Mirror
  - **Paper objects:** Book, Drawing sheet, Calendar
3. The full form of ORS is Oral Rehydration Solution. It is a simple but effective solution to prevent dehydration caused by diarrhoea or vomiting.
- Steps to make ORS at home:
- (i) Take one litre of clean drinking water.
  - (ii) Add six teaspoons of sugar and half a teaspoon of salt to it.
  - (iii) Stir well until the sugar and salt dissolve completely.
  - (iv) Give the solution to the patient in small sips at regular intervals.
- ORS is given to patients suffering from diarrhoea, vomiting, or dehydration due to excess loss of fluids from the body.

### Multiple Choice Questions

- |                         |                     |
|-------------------------|---------------------|
| 1. (b) air              | 2. (a) ground glass |
| 3. (c) chalk powder     | 4. (d) diamond      |
| 5. (c) honey            | 6. (d) sawdust      |
| 7. (c) cellophane paper | 8. (c) tennis ball  |

### 21<sup>st</sup> Century Skills

1. (a) (i) Carbon dioxide (ii) Oxygen (iii) Nitrogen  
(b) Plants
2. Cotton (soft material); All others are hard materials
3. (a) Ground glass; translucent materials  
(b) Clear glass; transparent materials  
(c) Wood; opaque materials