

Lesson – 7

Solids, Liquids and Gases

1. Tick (✓) the correct answer:

a. Water exists in _____ forms.

Ans. iv. Three

b. When water is frozen, it becomes

Ans. i. Ice

c. Steam is this form of water

Ans. iii. Gaseous

d. The molecules are the most closely packed in

Ans. Solids

2. Fill in the blanks:

a. Pieces of ice are **solid** and have a definite shape.

b. The **gases** have no definite volume, shape or size.

c. Matter has **mass** and it occupies **space**.

d. Water flows easily, because it is a **liquid**.

3. Answer the following questions:

a. What is matter?

Ans. Anything that occupies space and has weight is called matter.

b. Write any two differences between liquids, solids and gases.

Ans. Solids :- (i) Have fixed shape.

(ii) Have fixed volume.

Liquids :- (i) Do not have fixed shape.

(ii) Have fixed volume.

Gases :- (i) Do not have fixed shape.

(ii) Do not have fixed volume.

c. Define (i) evaporation (ii) condensation.

Ans. Evaporation:- The change of water into water-vapour on heating.

Condensation:- The change of water-vapour into water on cooling.

d. Differentiate between melting and freezing.

Ans. Melting:- The process of changing a solid into liquid.

Freezing:- The process of changing a liquid into a solid.

4. Put these objects in the correct columns.

SOLIDS

LIQUIDS

GASES

Cake

oil

oxygen

Car

petrol

nitrogen

Table

milk

carbon-dioxide

Lesson 8

Some Properties of Water

1. Tick (✓) the correct answer.

a. A universal solvent is

Ans. ii. Water

b. Water has a fixed

Ans. ii. Volume

c. In a sugar solution, sugar is the

Ans. i. Solute

d. Water is

Ans. iv. All of these

2. Put these substances in the correct column:

Soluble Substances

Insoluble Substances

Salt

Oil

Sugar

Sand

Coffee powder

Petrol

Lime juice

Stone

3. Write True or False:

a. Things heavier than water, float on water.

False

b. Water exerts a buoyant force on things immersed in it.

True

c. Salt will dissolve faster in cold water than warm water.

False

d. An iron nail will float in a bucket of water.

False

4. Answer the following questions:

a. Why does an object sink or float in water?

Ans. Things that are lighter than water float in water.

Things that are heavier than water sink in water.

b. Explain the terms Solute, Solvent and Solution.

Ans. Solute - A substance that dissolves in water.

Solvent – A liquid in which a solute dissolves.

Solution – A liquid formed when the solute completely dissolves in the solvent.

c. Distinguish between soluble and insoluble substances.

Ans. Soluble substances dissolve in water while insoluble substances do not dissolve in water.

d. What is buoyancy?

Ans. The upward force exerted by water on objects immersed in it.

Lesson 9

Water As A Resource

1. Tick (✓) the correct answer:

a. The change of water to water vapour is called

Ans.ii. Evaporation

b. An example of a water-borne disease is

Ans.i. Cholera

c. An example of soluble impurity present in water is

Ans.i. Germs

d. Evaporation is faster when it is

Ans.iv. All of them

2. Match the following:

- | | |
|------------------------------|----------------|
| a. Soluble impurity in water | iii. Boiling |
| b. Evaporation | iv. Heat |
| c. Insoluble impurity | ii. Filtration |
| d. Condensation | i. Cooling |

3. Fill in the blanks:

- Decantation is done after the process of **Sedimentation**.
- A candle filter helps to **filter** water.
- Adding **chlorine** to drinking water kills germs.
- Water is precious and should not be **wasted**.

4. Answer the following questions:

- Distinguish between evaporation and condensation.

Ans. Evaporation: Change of water to water vapour on heating.

Condensation: Change of water vapour to water on cooling.

- Briefly explain the water cycle.

Ans. Water circulates naturally between water bodies present on the earth and the atmosphere in the form of a cycle called water cycle. Drops of water join together and form clouds. When cloud become heavy, they fall down as rain. Rain water fills lakes, rivers and oceans. This cycle goes on in nature.

- How can soluble impurities be removed from water?

Ans. By boiling and chlorination.

d. What is rainwater harvesting?

Ans. Collecting rainwater and using it later is called rainwater harvesting.

e. What is chlorination?

Ans. Adding chlorine to drinking water to make it safe for drinking is called chlorination.