

## CLASS V

### ASSIGNMENT

#### CH-4

### SOLIDS, LIQUIDS AND GASES

#### 1 Mark Question

1. What are the different states of matter?  
Solids, Liquids and Gases are the three states of matter.
2. What are solids?  
Solids are substances in which the particles are tightly packed and cannot move away from each other. They have a fixed shape.
3. Name the process by which a gas changes into a liquid.  
Condensation is the process by which a gas changes into a liquid.
4. Name some changes that occur around us in our daily life.  
Cooking of food, drying of clothes, growing of trees and ripening of fruits are some changes that occur around us.
5. What are the types of changes that occur around us?  
All changes can be either physical or chemical, depending upon whether a new substance is formed or not.
6. What happens to the substance when it is heated?  
When a substance is heated, its particles start vibrating faster making it expand.
7. What happens to the substance when it is cooled?  
When a substance is cooled, the movement of its particles slows down making it contract.

#### 2 Mark Question

8. Which substance is called universal solvent? Why is it called so?  
Water is called as universal solvent because mostly all the substances dissolve in water.
9. What is the difference between melting and solidification?  
**MELTING:** Changing of a solid into a liquid is called melting. For Example: Ice changes into Water when taken out of the refrigerator.  
**SOLIDIFICATION:** Changing of a liquid into its solid form is called solidification. For Example: Water forms Ice upon freezing.
10. Why does ice change into water on melting?  
When an ice cube is taken out of the refrigerator, it melts gradually. This is because in a warm place, the particles in ice start vibrating faster and finally break away from the rigid pattern. They become loosely packed as in a liquid and thus form water.
11. Why does a tight metal lid of a glass jar get opened when dipped in warm water?  
Warm water heats the lid due to which the particles start vibrating faster, causing it to expand a little and open out easily.

12. What do you mean by expansion and contraction?

**Expansion:** The increase in the size of matter on heating is called expansion.

**Contraction:** The decrease in the size of matter on cooling is called contraction.

13. Why do electric cables appear to hang loosely from the poles during summer but do not appear so in winters?

Electric cables appear to hang loosely from the poles during summer but do not appear so in winters because of expansion and contraction.

14. What is the difference between Evaporation and Condensation?

<b>Evaporation</b>	<b>Condensation</b>
Changing of a liquid into its gaseous form is called Evaporation.	Changing of a gas into a liquid is called Condensation.
Particles can move freely.	Particles are less free to move.
For Example: Water changes to water vapour when heated.	For Example: Water vapour changes to water upon cooling.

15. Differentiate between miscible and immiscible liquids.

When two liquids mix together such that they dissolve completely in each other, they are called **Miscible Liquids**. For example: Milk dissolves in water completely.

When two liquids mix together such that they do not dissolve completely in each other, they are called **Immiscible Liquids**. For example: oil does not dissolve in water.

### 3 Mark Question

16. Differentiate between solids, liquids and gases.

<b>SOLIDS</b>	<b>LIQUIDS</b>	<b>GASES</b>
In solids, the particles are tightly packed and so cannot move away from each other.	In liquids, the particles are not as tightly packed as in solids; so they can move and slide over each other.	In gases, the particles are far apart from each other and can move freely.
Solids have a fixed shape.	Liquids can flow and take the shape of the container they are poured into.	Gases can flow easily and take up all the available space.
For Example: Ice	For Example: Water	For Example: Water vapour

17. Differentiate between solute, solvent and solution.

**Solute:** The substance that dissolves in another substance (liquid) is called solute.

**Solvent:** The substance in which the solute dissolves is called solvent.

**Solution:** When two substances mix together such that they are evenly distributed, a solution is formed.

For Example:

Salt + Water  $\longrightarrow$  Salty Water

Solute + Solvent  $\longrightarrow$  Solution

18. What are the different types of solutions? Explain with examples.

There are four different types of solutions:

**Solids dissolved in Liquid:** This type of solution is formed when the solute is solid and the solvent is liquid, example- sugar solution, salt solution.

**Liquid dissolved in Liquid:** This type of solution is formed when the solute and the solvent are both liquids, example- milk in water.

**Gas dissolved in liquid:** This type of solution is formed when the solute is gas and the solvent is liquid, example- carbonated drinks.

**Gas dissolved in Gas:** This type of solution is formed when the solute and the solvent are both gases, example- air (mixture of different gases).

19. Differentiate between Physical and Chemical change.

<b>Physical Change</b>	<b>Chemical Change</b>
Physical change is a type of change in which only the physical state of the substance changes.	Chemical change is a type of change in which the chemical composition of a substance changes.
No new product is formed.	A new substance is formed.
For Example: Melting of ice, tearing of paper, Breaking of glass	For Example: Rusting of iron, making curd from milk, cooking food.

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## CLASS V

### ASSIGNMENT

#### CH-5

#### ROCKS AND MINERALS

##### 1 Mark Question

1. Name the different types of rocks.  
Depending on the way they are formed, rocks are classified into three types:  
a. Igneous Rocks    b. Sedimentary Rocks    c. Metamorphic Rocks
2. Name the different layers of the Earth.  
The Earth can be divided into three layers:  
a. Crust    b. Mantle    c. Core
3. What is the Earth's Crust made up of?  
The Earth's Crust is made up of igneous rocks.
4. What is the Earth's Core made up of?  
The Earth's Core is made up of molten rocks.
5. Define Lava.  
When molten rock called magma flows out onto the surface of Earth, it is called Lava.
6. What are minerals?  
The chemical substances with a fixed chemical composition that occur in nature are called minerals.
7. Give some examples of sedimentary rocks.  
Sandstone, shale and limestone are examples of sedimentary rocks.
8. Give some examples of metamorphic rocks.  
Marble, Slate and Quartzite are examples of metamorphic rocks.

##### 2 Mark Question

9. What are granite rocks? Where is it used?  
Very Hard Rocks formed by slow cooling of lava are called granite rocks. These are used as a building material (as polished granite on kitchen counters and floors).
10. What are magnets? How many types of magnets are there?  
Substances that can attract iron are called magnets. There are two types of magnets: Natural magnets and Man-Made magnets.
11. What is Limestone? Where is it used?  
Limestone is a rock with fine grains that are quite soft. It is used in making many things such as whitewash, paint and cement.
12. Which Gemstones (minerals) are used in making jewellery?  
Gemstones (minerals) such as diamond, ruby, emerald and topaz when polished appear beautiful and shiny. Hence, they are used in making jewellery.

13. What are ores? Give examples.

Minerals that are rich in metals are called ores. For example:-Magnetite is rich in iron and Bauxite is rich in Aluminium.

14. Name two important products obtained from rocks present deep within the Earth.

Coal and petroleum

15. What are fossils?

The dead plant matter buried under great pressure over millions of years is called fossil.

16. What are the different uses of coal?

Coal is used for cooking, heating, producing electricity and running steam engines.

17. Which fuels can be refined from petroleum?

Fuels such as petrol, diesel, kerosene, gasoline and LPG can be refined from petroleum.

### **3 Mark Question**

18. What is Pumice? Where is it used?

Pumice is porous or full of holes and is formed from the lava that is frothy with a lot of air in it. It is the only rock that can float. It is used in making lightweight building materials such as concrete blocks.

19. What are the different uses of minerals?

The different uses of minerals are:-

- a. Minerals such as gypsum and calcite are used as building materials.
- b. Minerals give us useful metals.
- c. Minerals such as diamond, ruby, emerald etc. are used as gemstones.
- d. Many minerals such as sulphates, nitrates serve as fertilizers.
- e. Minerals such as calcium, iron and sodium serve as part of our diet.

20. How many types of minerals are there? Give examples.

Minerals are of two types: Metallic and Non-Metallic minerals

Metallic Minerals - Magnetite and Bauxite

Non-Metallic Minerals – Calcite and Gypsum

21. What is petroleum? How is it formed?

Petroleum is a natural, yellow-to-black liquid found deep beneath the Earth's surface. It is formed when large quantities of dead organisms are buried under the sedimentary rocks in intense heat and pressure.

22. What is the difference between Natural magnets and Man-made magnets?

#### **Natural Magnets**

Natural magnets are found in nature. For Example:-Magnetite

#### **Man-made Magnets**

Man-made magnets are made by man. For example:-Magnets made from iron, cobalt or nickel.