

EXERCISE - II

- Define :
(a) Atom (b) Molecule
(c) Atomicity (d) Formula
- Why are symbols and formulae of substances important ?
- Mention three gaseous elements and write their molecular formulae.
- State the informations obtained from the formula of a compound.
- State the difference between the following :
(a) 2H and H_2 (b) H_2O and $3\text{H}_2\text{O}$?
- State the number of atoms of each element, present in
(a) $\text{C}_6\text{H}_{12}\text{O}_6$ (b) H_2SO_4
(c) HNO_3 (d) CaCO_3
Also name these compounds.
- Write the molecular formulae of compounds calcium oxide, hydrogen sulphide, carbon monoxide and lead sulphide.
- Give two examples each of compounds existing in the following states :
(a) Solid (b) Liquid (c) Gaseous

USES OF DIFFERENT ELEMENTS AND COMPOUNDS ON THE BASIS OF THEIR PROPERTIES

Now you know that, there are different types of elements and compounds since they consist of different types of atoms and molecules, *i.e.*, different kinds of matter differ from one another in their properties. The difference in their properties forms the basis of their uses in our daily life.

For example : A frying pan is made up of steel but its handle is made up of wood or plastic. This is because steel is a good conductor of heat and it allows heat to pass to the food kept in the pan for cooking while wood and plastic being bad-conductors or insulators do not get too hot to burn our hand.



Fig. 4.1 A frying pan

Some of the substances of use are mentioned below :

- Gold, platinum and silver** are lustrous. They shine and look very attractive. They can also remain in free state. They do not tarnish in air. Therefore these metals are used to make jewellery.
- Copper and aluminium** are good conductors of heat and electricity. They can be drawn into wires and beaten into sheets. Therefore, they are used to make utensils, electric wires *etc.*
- Copper can be mixed with metals like zinc and tin to produce mixtures like **brass** and **bronze** which are stronger and durable. They are used to make statues, utensils, door knobs, handles, machine parts, taps, electrical fittings, *etc.*
- Iron** is one of the most useful of all metals. It is strong and easily available. Therefore, it is used to make heavy tools and machines.
- Diamond** is the hardest naturally occurring substance. It shines brilliantly. Pure diamond is used as a gem while impure diamond is used to cut glass.

- **Graphite** can mark the paper black. It is used to make the lead of pencils. It is also used to make lubricants.
- **Coal, wood and natural gas** burn to produce lots of heat energy. Hence, they are used as fuels.
- **Water** is considered to be a **universal solvent**. It carries dissolved substances around in blood in animals and as sap in plants. It is used to prepare solutions of medicinal and industrial importance. It has various other uses in our daily life.
- **Plastic** : It is a non-conductor, used as an insulator. There are different types of

plastic materials used for making bags, shoes, balls, bats, tyres, pipes, unbreakable utensils, non-stick cookwares *etc.*

- **Sand** is a compound used to prepare glass.
- **Argon and neon** : A noble gas such as argon or neon is filled in electric bulbs due to its inert nature. It does not react with the tungsten filament of the bulb and prevents it from destruction.

Diamond, graphite and coal are all different forms of element carbon.

RECAPITULATION

- ☞ An element is a substance which cannot be broken further into simpler substances. It is made up of extremely small indivisible particles called atoms. An element has a definite set of properties.
- ☞ Atoms of a given element are identical both in mass and in properties. Atoms of different elements have different masses and properties.
- ☞ Atoms cannot be created, destroyed or transformed into atoms of other elements.
- ☞ An atom is the smallest unit of an element and it may or may not have independent existence. Atoms combine to form molecules.
- ☞ A compound is a substance formed by the chemical combination of two or more elements in a fixed proportion by mass. It is made up of only one kind of molecules. A compound also has a definite set of properties.
- ☞ A molecule is the smallest unit of a compound (or an element) which always has an independent existence.
- ☞ Same kind of atoms combine to form molecules of elements.
- ☞ Different kinds of atoms combine to form molecules of compounds.
- ☞ Elements and compounds are represented by symbols and formulae respectively. They represent the atoms and molecules of elements and also the molecules of compounds.
- ☞ The difference in the properties of different types of elements and compounds forms the basis of their uses in our daily life.

Class - VI
Sub - Chemistry
Chapter - 4 Elements, Compounds, Symbols
and Formula part 7

1) Why is the frying pan is made up of steel but its handle is made up of wood?

2) What are the uses of gold, platinum and silver?

3) What are the uses of copper and aluminium?

4) What is brass and bronze? Give their use.

5) What is the use of diamond?

6) What is the use of graphite?

7) What is the use of coal, wood and natural gas?

8) Why is water known as universal solvent?

04

2020 NOVEMBER

DAY 309 - 057 WEEK 45

WEDNESDAY

November 2020							
Wk	M	T	W	T	F	S	S
44/49	30						1
45	2	3	4	5	6	7	8
46	9	10	11	12	13	14	15
47	16	17	18	19	20	21	22
48	23	24	25	26	27	28	29

APPOINTMENT / MEETING

- 8 (9) What is the use of plastic?
- 9 (10) What is the use of sand?
- 10 (11) What is the use of argon and neon?

P.S. 2-7-20

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