

H.W

15.10.21

CHEMISTRY

multiple choice questions.

1) The branch of science which deals with the different forms of energy e.g. light and sound.

A) Chemistry.

2) The scientist who formulated the periodic table.

C) Dmitri Mendeleev.

3) The inter-molecular force is maximum in

a) Solids.

4) Rapid conversion of water into steam is an example of

d) Vaporization.

5) The temperature at which a liquid gets converted into its gaseous state is called its

b) boiling point.

6.) Predecessors to the modern chemist who created the philosopher's stone?  
a.) Alchemists.

7.) What is an element?  
a.) A substance that is made up of one type of atom and can't be reduced to simpler substances.

8.) A metallic apparatus which supports the wire gauze.  
a.) Tripod stand

9.) A long glass apparatus closed at one end used for collecting gases.  
b.) Gas jar.

10.) A modern apparatus with an air regulator used for heating purposes.  
b.) Bunsen burner.



16) Preservatives are added to food or beverages.

Explain why?  
Ans.) Sodium benzoate, sodium meta bisulphite are used for preservation of food and avoid spoilage.

17) Alchemy was considered a pseudoscience. Give reason.

Ans.) - Alchemy common language for its concepts and processes. There was no standardised scientific practice. So it considered a ~~sect~~ <sup>sect</sup>.

~~18)~~ 18) what happens to water if it is kept in a deep freezer - it changes into solid i.e. ice.

b) it is heat - it changes into gas i.e. water vapour.

Explain the phenomenon of change of state of water.

ANSY. ~~Contd~~ a) Solidification - The process by which a substance in liquid state changes into a solid state.

b) Vaporisation - The process by which a substance changes from a liquid state to vapour state.

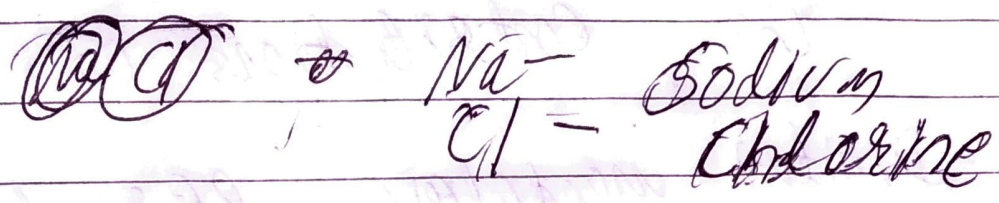
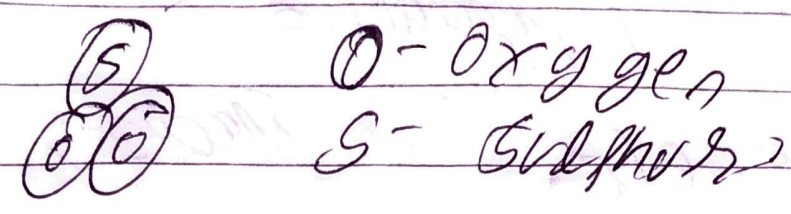
19) State two characteristics of water which prove that it is a compound.

ANSY) 1) It is formed when two elements hydrogen and oxygen combine chemically in a fixed ratio of 1:8 by mass.

2) The properties of water are different from those of its constituent elements.

Q6) Show diagrammatic representation of Sulfur dioxide and sodium chloride molecule.

Ans)



21.) Differentiate between the terms food preservatives and food processing with appropriate examples.

Food preservatives - Preservatives like Sodium benzoate, sodium metabisulfite, and salicylic acid are used for better preservation of food to check on its Spoilage.

Food processing - Food processing is the transformation of raw

Food materials by physical or chemical means into marketable food products that can be easily prepared and served to the consumers, such as cheese, jam, jellies, butter, vegetables, bread, biscuits, snacks, soft drinks, etc.

State the contributions of.

- Dmitri Mendeleev - Periodic Table
- Antoine Lavoisier - Discovered the elements Carbon, hydrogen and oxygen and discovered the role of oxygen.
- John Dalton - towards the development of chemistry - He discovered atoms.

22) Explain the term compounds - Compounds are pure substances formed by the chemical combination of two or more elements in a definite proportion by mass.

Give two examples of a compound containing:

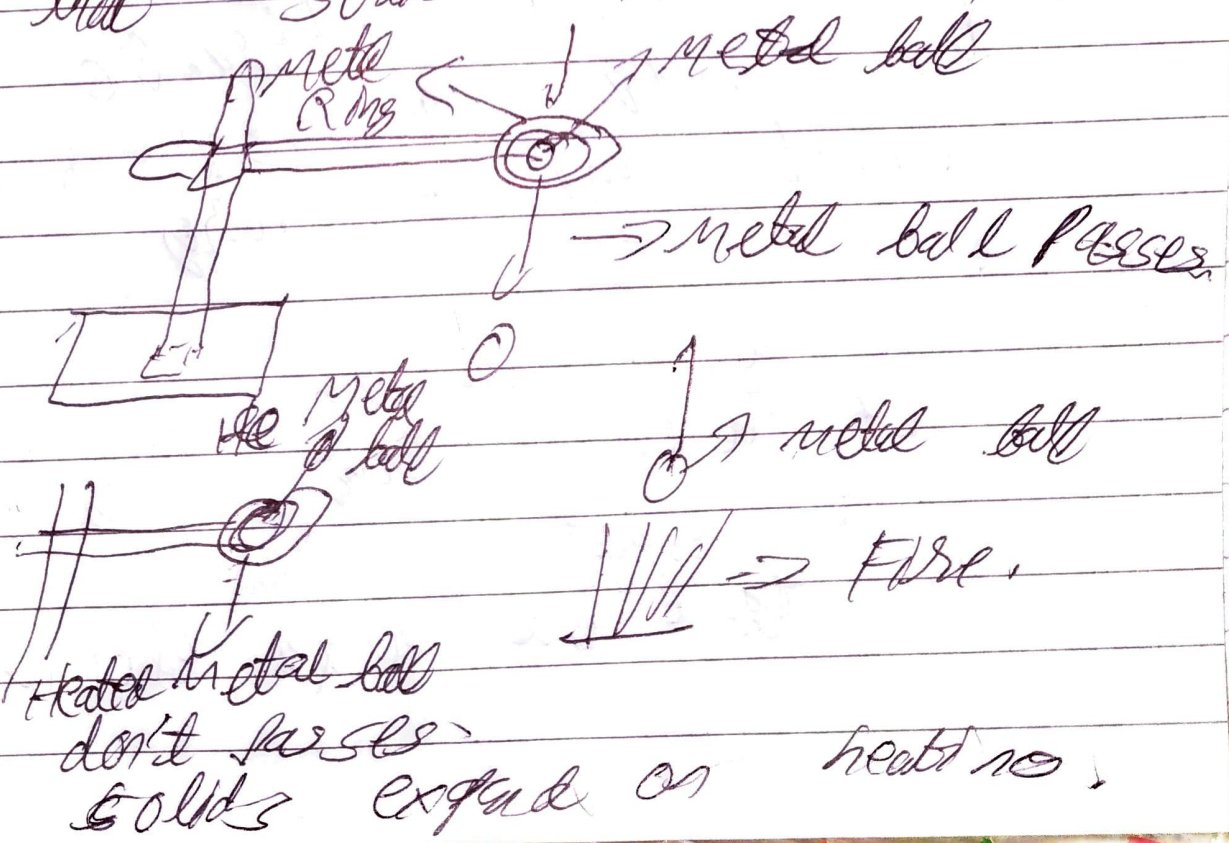
a) hydrogen and oxygen - water.

b) carbon and oxygen - carbon monoxide.

c) nitrogen and oxygen - Nitric oxide.

a) ~~calcium~~ calcium and oxygen - calcium oxide.

23) with the help of a simple diagram - how would you show that solids expand on heating.





24) All medicines must be taken under the doctor's supervision and in the correct dose. Correct reason.

25) Ans) Because: If we take medicine ~~to~~ <sup>above</sup> ~~and in~~ <sup>an</sup> increased dose then it can lead to ~~more~~ <sup>ill</sup> leads to death and infection.

26) Write use & use of the following elements and compounds.

a) Gold, Platinum, Silver - - They shine and look very attractive therefore these metals are used to make ornaments and jewelry.

b) Copper, aluminium - They are good conductors of electricity. They can be beaten into sheets. Therefore they are used to make electric wires.

Q) Plastic - It is a non-conductor  
use as an insulator.  
They are used to make  
shoes, balls, bats, non-stick  
cookware etc.

Q) Give reason why:  
a) wet clothes dry more quickly  
on a warm day than on a  
cold humid day. Explain.

Ans) Because there is more heat  
on a warm day.

b) Water in a dish evaporates faster  
than in a bottle. Give reason.

Ans) Because it is open and get  
more heat.

Q) Why are volatile liquid and  
solid and alcohol and spirit  
stored in close bottles?

Ans) Because they are reactive  
with air.

27)) Give reason.

a) A philosopher's stone is not exactly a stone.

Ans) It is a mythical and magical thing. Substance in liquid, powder or gas.

b) Food processing is an important procedure for obtaining marketable food products.

Ans) Without food processing we can't get an <sup>1</sup>edible (healthy) and safe food.

c) Cosmetics may contain preservatives as one of these ingredients.

Ans) To increase the life of cosmetics.

28) What do you mean by sublimation? why does the size of naphthalene balls decrease when left to open? Describe an experiment to demonstrate the process of sublimation.

Ans) The conversion of a solid substance into its vapour, without ever going through liquid state on heating is called sublimation. Naphthalene balls sublime and change into vapour state so they decrease when left open. Keep naphthalene balls open along with woolen clothes, with passage of time, become smaller because they sublime and change into vapour state.

29) Tabulate a comparable chart - to differentiate between elements, compounds and mixtures. Differentiate one with reference to.

- a) The term
- b) existence
- c) properties

## Elements

Term) These basic substance are called elements.

Existence) They exist homogeneous

Properties) These are pure substances. They cannot be broken into simpler substances.

## Compound

Compounds are formed by the chemical combination of two or more elements.

They exist homogeneous

They can be broken into simpler substances by chemical process Electrolysis.

## Mixtures

Mixtures are impure substances that are either homogeneous or heterogeneous.

They exist homogeneous or heterogeneous.

They are impure substances. They may consist of elements or compounds or both.

30.)  
a) Give reasons for the following.  
Solids have a definite shape and cubical and rod like shape and have least space.

Ans) This is because solids molecules are tightly packed and gas are opposite of it so solids have definite shape and liquids don't. And also solids are not mobile for above reason and gases are opposite of it.

b) Sugar can be dissolved in water under some conditions.

Ans) As we know that sugar is completely soluble in water whereas talcum powder is insoluble in water and forms sediment when added to water.

c) Water on freezing turns into ice.

Ans) When a liquid cools the particles lose energy and movement becomes less. Hence molecules are packed more closely and space between them is reduced. This process is called solidification or freezing.