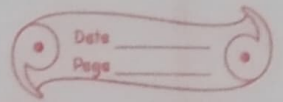


22/oct/2021



Biology Chemistry

MCQ

(One Mark)

1. - ~~B~~ Physics
2. - C) Dmitri Mendeleev
3. - A) Solids
4. - D) Vaporization
5. - B) Boiling Point
6. - B) Alchemists
7. - A) A substance that is made up of one type of atom and cannot be reduced to simpler substances.
8. - A) A Tripod stand
9. - B) Gas Jar
10. - A) Spirit lamp

FIB

11. nitrogen
12. chemical
13. 100°C
14. Freezing
15. Sublimation

(2 Marks)

16. Preservatives are added to food or beverages. Explain why?

Ans Sometimes Food or Beverages spoil or rot. To prevent it from spoiling and rotting

we will use preservatives.

17. Alchemy was considered ~~as~~ ^{to be} pseudoscience. Give Reason.

Ans. Alchemy in ancient times like modern chemistry. Since most of the principles can't be proved, it became a pseudoscience.

18. What happens to your water, if

a) It is kept in a deep freezer.
→ It will change from water (liquid) to ice (solid).

b) It is heated
→ It will change from water to vapours (gas)

19. State.

a) Explain phenomenon of change of state of water.

→ Ice Water $\xrightarrow{\text{Freezing}}$ Ice
(Liquid) (Solid)

Water $\xrightarrow{\text{Boiling}}$ Vapour
(Liquid) (Gas)

19. State ^{two} characteristics of water which prove that it is a compound.

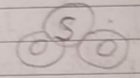
Ans. Water is made from two molecules - Hydrogen & Oxygen.

• It can be water molecule cannot be broken into constituent elements hydrogen and oxygen by a chemical physical method. Its components can only be separated by a chemical method known as electrolysis.

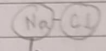
20. Show diagrammatic representation of sulphur dioxide molecule and sodium chloride molecule.

Ans.

Sulphur dioxide -



Sodium chloride -



3 Marks:

21. Differentiate between food processing with appropriate examples. State the contributions of.

a) Dmitri Mendeleev

b) Antoine Lavoisier

c) John Dalton - towards the development of chemistry.

Ans Difference between Food processing and food preservation :-

Food preservatives	Food processing
<p>① They are used to stop food from rotting and spoiling.</p> <p>② For Example: Sodium Benzoate and salicylic acid.</p>	<p>① It is the transformation of raw food materials by physical or chemical means into marketable food products that can be easily served to consumers.</p> <p>For Example: jams and jelly.</p>

Contributions of :

a) Dimitri Mendeleev → Dimitri Mendeleev formulated a periodic table of elements which is a systematic arrangement of elements in a tabular form for their convenient study.

b) Antoine Lavoisier → Antoine Lavoisier revolutionized chemistry. He named elements carbon, hydrogen and oxygen and discovered the role of oxygen in combustion and respiration for which he is most noted. He established that water is a compound and helped to continue the transformation of chemistry from a qualitative science to a quantitative one.

c) John Dalton: John Dalton was a proponent that matter consists of small indivisible particles called atoms. For this he proposed an atomic theory which was later on called 'Dalton's atomic theory'.

22. Explain the term compounds. Give the example of compound containing

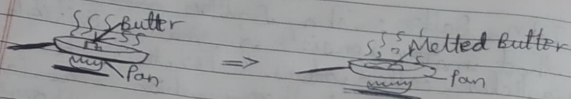
- hydrogen and oxygen
- carbon and oxygen
- nitrogen and oxygen
- Calcium and Oxygen

Ans Compounds are pure substances formed by the chemical combination of two or more elements in a definite proportion by mass.

- hydrogen and oxygen - Water (H_2O)
- carbon and oxygen - CO_2
- Nitrogen and oxygen - NO_2
- Calcium and oxygen - CaO

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

Ans



Like when heating butter it changes to its melted form, other solids ~~also~~ also expands on heating.

24. All medicines must be taken ~~to~~ under proper doctors supervision and in the correct dose.
Given reason.

Ans All medicines must be taken under proper doctors supervision because taking much medicines or eating sandwich medicines if we are not affected of any disease can cause side-effects.

25. a) Gold, platinum and silver; Gold is used in ornaments and Holy things. Platinum is used in ornaments. and Silver is used in shaving.

b) ~~Copper~~ Copper and Aluminium: Copper is used as roofing or pillars. Aluminium is used in most utensils.

c) Plastics: Many toys are made up of plastic. Polybags, toys, pen-caps, etc. are examples of things made up

of plastic.

26. Give reason why on summer season,
- Sun makes the water of wet clothes evaporated. But in cold weather the sun provide less heat. So, the clothes can't be dried in winter season properly.
 - Surface ^{area} of dish is more as compared to bottle. So evaporation ^{in dish} of water is faster than in a bottle.
 - To prevent volatile liquids such as alcohol and spirit from evaporating they are kept in bottles.

27. Give reasons:-

- Philosopher's stone is made from liquid powder or wax; So, its not exactly a stone.
- Something food (not packed) such as pickles not or spoil. For this food processing (packaging) has been done.
- We keep cosmetics and save them for months. So, it has preservatives in it. for

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

Ans: When a solid changes directly into a gas, it is known as sublimation.

Naphthalene balls decrease when left open because of sublimation. They evaporate when left open.

Experiment: Take a nap camphor and keep it in a room or outside. You will see that it is evaporated after after some time due to sublimation.

29. →

	Elements	Compound	Mixtures
term	Substance made up of one kind of atom	Substance made from two or more element	2 or more compounds together mix to form it.
existence	Sodium	CO ₂	NaCl, MgCl ₂
properties	Can't be broken into simpler forms	Can be broken into elements.	Two or more compounds are unevenly mixed

30. a) In Solids, the molecules are tightly packed; and so, they have a definite shape and don't float and they are rigid because the molecules are completely packed and there is a less vibration between molecules. But in gases the molecules are far apart from each other so they have no definite shape and are least rigid.

b) If we will put water in talcum powder it will ^{not} be dissolved but sugar will ^{not be} dissolved.

c) If we will freeze a liquid it ^{will} turn into its solid form. So when ~~to~~ we freeze liquid (water) it will turn into solid (ice).