

I. ONE MARK QUESTIONS

Multiple choice questions

1. The branch of Science which deals with the different forms of energy e.g. light and sound.
A : Chemistry
✓ B : Physics
C : Biology
2. The scientist who formulated the Periodic Table.
A : John Dalton
B : Daniel Rutherford
✓ C : Dmitri Mendeleev
3. The inter-molecular force is maximum in
✓ a) solids
b) gases
c) liquids
d) none of the above
4. Rapid conversion of water into steam is an example of
a) evaporation
b) freezing
c) melting
d) vapourization
5. The temperature at which a liquid gets converted into its vapour state is called its
a) melting point
✓ b) boiling point
c) dewpoint
d) freezing point
6. Predecessors to the modern Chemist who created the Philosopher's stone'.
A : Botanists
✓ B : Alchemists
C : Physicists

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.
- b) A substance made of two or more different atoms chemically bonded to one another. They can only be destroyed by chemical processes.
- c) A material containing two or more elements or compounds that are in close contact and are mixed in any proportion. They can be separated by physical means.

8. A metallic apparatus which supports the wire gauze.

- a) A Tripod stand
- b) Retort stand
- c) Test tube stand

9. A long glass apparatus closed at one end used for collecting gases.

- a) Measuring cylinder
- b) Gas jar
- c) Beehive shelf

10. A modern apparatus with an air regulator, used for heating purposes.

- a) Spirit lamp
- b) Bunsen burner
- c) Electric stove

Fill in the blanks:

- 11. From the elements nitrogen, chlorine, bromine, the element present in the atmosphere is nitrogen
- 12. An element is a pure substance which cannot be broken down by physical or chemical methods.
- 13. Evaporation takes place at low temperatures.
- 14. freezing Process is just the reverse of melting.
- 15. Sublimation is a process that involves direct conversion of solid into its vapour on heating.

2 MARK QUESTIONS:

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

Preservatives are added to food or beverages to keep it fresh for a long time. They are kept in the shops for a very long number of days, so preservatives like oil, sugar, wood, salt etc. help in keeping them fresh.

17. Alchemy was considered a pseudoscience. Give reason.

Alchemy was considered a pseudoscience because it was partly based on experimentations and partly on ~~self~~ spiritual discipline. The alchemist were looking for a stone called 'Philosopher's stone' with magical power which was never possible.

18. What happens to water if

- (a) it is kept in a deep freezer: it turns into ice (solid)
- (b) it is heated: it turns into water vapour (gas)

(a) When water is kept in a deep freezer it turns into ice, this is called freezing.

(b) When water is heated it turns into water vapour, this is called vapourization.

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

Water is a compound because

* it is made up of two elements oxygen and hydrogen, which can be separated by the process of electrolysis.

* energy is needed to form water when O_2 and H_2 is combined.

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

3 MARK QUESTIONS

21. Differentiate between the terms - food preservatives and food processing with appropriate examples. Food preservatives are used to preserve the food and protect it from spoilage.

Food processing is ~~used~~ transformation of ~~raw~~ food. The process of transforming raw food materials by physical or chemical means into marketable food products which can be easily prepared and used by people.

State the contributions of
(a) Dimitri Mendeleev - He discovered the Periodic table which helps us a lot in the elements.

(b) Antoine Lavoisier - He discovered the elements oxygen, hydrogen and nitrogen which is present in the air.

(c) John Dalton - John Dalton discovered atom, which is the smallest part of matter.

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

Compounds are pure substances made up of the combination of two or more different elements with definite proportion.

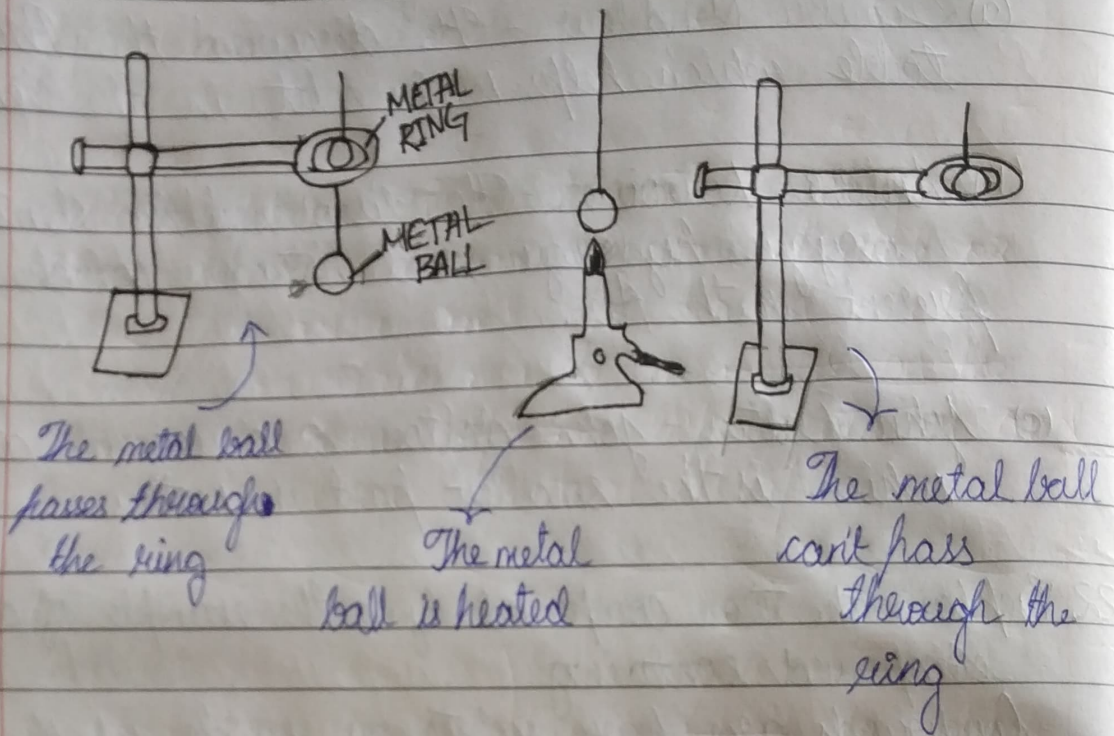
(a) Hydrogen & oxygen = water

(b) Carbon & oxygen = carbon dioxide

(c) Nitrogen & oxygen = nitro-oxide

(d) calcium & oxygen = calcium oxide

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



Here we can see that the ball first can pass through the ring, but when it is heated with the help of a Bunsen burner the solid expands and it becomes bigger. Thus it is not anymore able to pass through the ring.

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

We should always take medicines after asking the doctor first. We should also take the correct dose, ~~else~~ if not it may lead to very dangerous conditions.

25. Write the uses of the following elements and compounds.

(a) Gold, platinum, silver are elements used as ornaments ~~and~~ and plates etc.

(b) Copper, aluminium are used to make different utensils.

(c) Plastic is a compound used as bags, bottles, pens etc.

26. Give reasons why

(a) Wet clothes dry more quickly on a warm day than a cold humid day. Explain.

As cold humid days have a lot of moisture in the atmosphere, clothes dry more quickly on a warm day than cold humid days.

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

Evaporation is a surface phenomena i.e. more exposed surface area more is rate of evaporation. The water in a dish thus evaporates faster than in a bottle because of the dish is larger than the surface area of bottle.

27. Give reason

(a) A philosopher's stone is not exactly a stone. Philosopher's stone is not exactly a stone because it was a wax, liquid or powder and the search for it which was alchemy ~~was~~ based on the ~~partly~~ based on ~~experiments~~ experimentation and partly based on spiritual discipline.

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

Food processing is a process ~~where~~ in which transformation of raw food materials by physical or chemical means into marketable ^{food} products is possible which helps in easily preparing food and used by people.

(c) Cosmetics may contain preservatives, as one of their ingredients.

Cosmetics ~~may~~ contain preservatives because they can be used for a long time. And without preservatives it may be spoiled very quick.