

1st ~~Ques~~ Expand IUPAC

Ans: IUPAC stands for International Union of Pure and Applied Chemistry -

16 } Differentiate between compound and mixture

Ans } Compound:-

- i } A compound is a pure substance.
- ii } Compounds are always homogeneous.
- iii } A compound has a fixed composition, i.e. it is formed when two or more pure substances chemically combine in a definite ratio by mass.
- iv } Formation of a compound involves change in energy.
- v } Compounds have specific properties which differ from the properties of their constituent elements.
- vi } Elements of compounds can be separated only by complex chemical processes.
- vii } Compounds have definite molecules. e.g. a molecule of water is represented by H_2O .

Mixture:-

- i } A mixture is an impure substance.
- ii } Mixtures ~~has~~ may be homogeneous or heterogeneous.
- iii } A mixture has no fixed composition, i.e. it is formed by ~~making~~ mixing two or more substances in any ratio without any chemical reaction.
- iv } Formation of a mixture does not involve any change in energy.

v) Mixtures do not have any specific set of ~~proper~~ properties. They exhibit properties of their components.

vi) Components of mixtures can be separated by simple physical methods.

vii) Mixtures have no definite formulae. e.g. air.

17) What do you mean by separation? On what factors the principle of separation depends?

Ans) A separation process is a method that converts a mixture or solution of chemical substances into two or more distinct product mixtures. Separation basically depends on the physical and chemical properties of the components. These factors are state, melting and boiling point, solubility, magnetic nature etc.

18) Mention any three characteristics of a mixture.

Ans) i) The mixture has no fixed composition.

ii) The mixture has no fixed melting points and boiling points.

iii) Mixture retains the properties of its components.

19) What are metalloids? Give examples.

Ans) A non-metal that in combination with a metal forms an alloy. An element that has both metallic and nonmetallic properties are called metalloids. Ex - Boron (B), Silicon (Si) etc.

20) Write a short on Noble gases.

Ans) These elements do not react chemically with other elements or compounds, so they are known as noble gases. They are found in air. There are only six in number - helium, neon, argon, krypton, xenon and ~~hydrogen~~ radon.