1) Mention five characteristic of element.

Ans Characteristics of element :-

* Melting point :- melting point is a spefic temperature in which a solid substance gets melted into liquid substance.

* Boiling point :- boiling point is a specific

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* ~~Dropping two/three drops Ink in water~~

* temperature in which a liquid substance gets boiled into gaseous substance.

* Electrical conductivity - electrical conductivity of an element is the amount of electricity that can be conducted by an element

* Electrical resistance :- electrical resistance of an element is the amount of electricity that can be resisted by an element.

2) Why carbon dioxide is a compound where as carbon is an element?

Ans- Carbon is an element and carbon dioxide constitutes of carbon and oxygen which are both independent elements combined together in a fixed ratio to form carbon dioxide. Carbon is combustible and oxygen supports combustion, but carbon dioxide extinguishes fire.

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1) Give five major differences between elements and compounds.

Compound	Element
* A compound contains atoms of different elements chemically combined together in a fixed ratio.	* An element is a pure chemical substance made of same type of atom.
* Compounds contains different elements in a fixed ratio arranged in a defined manner through chemical bonds. They contain only one type of molecules. Elements that compose the compound are chemically combined.	* Elements contain only one type of atom. Each atom has the same atomic number. i.e., the same number of protons in their nucleus.
* A compound can be separated into simpler substances by chemical methods / reactions.	* Elements cannot be broken down into simpler substances by chemical reactions.

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* A huge, virtually limitless number of chemical compo-unds can be created. Compounds are classified into molecular compounds ionic compounds, intron etallic compounds and complexes.	* There are about 117 elements that have been observed. Can be classified as metal, non-metal or metalloid.
* Water (H_2O), sodium Chloride ($NaCl$), sodium bicarbonate etc	* Hydrogen (H), Ox-ygen (O), sodium (Na), Chloride (Cl) Carbon (C), iron (Fe) copper (Cu), Silver (Ag) etc.

2) Explain, why we say H_2O is a compound but H_2 and O_2 are elements.

Ans- When molecular hydrogen (H_2) and oxygen (O_2) are combined and allowed to react together, energy is released and molecules of hydrogen and oxygen can combine to form either water or hydrogen peroxide. In this oxidation, a molecule of hydrogen gas ionized to two electrons and two protons.

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