8.7.2021

HOMEWORK

Q1. Give five ~~ngr~~ major differences between elements and compounds.

Ans:-

Elements	Compounds
1. Elements are composed of only one type of atoms. Ex:- O_2, N_2, O_8, Br, etc.	1. Compounds are composed of two or more elements. Ex:- H_2O, NaCl, $CaCO_3$
2. Elements can't be broken into simpler forms.	2. Compounds can be separated by few chemical methods
3. In elements, ~~don't~~ retain ~~leave~~ ~~toss~~ their properties during formation.	3. In compounds, constituting elements constituting atoms loose their properties during formation.
4. Elements can be classified into metals, non-metals and metalloids.	4. On the basis of properties, compounds can be classified into acids, bases and salts.
5. Formation of elements is a physical change.	5. Formation of compounds is a chemical change.

Q.2. Explain, why we say H_2O is a compound but H_2 and O are elements?

Ans:- ~~$H_2 + O \rightarrow H_2O$~~

Ans:- $H_2O \rightarrow H_2 + O$

If we break down H_2O chemically, we get Hydrogen (H_2) & Oxygen (O). Hydrogen and oxygen combine in the ratio 1:8 for H_2O. This is the property of compounds. ∴ H_2O is a compound.

If H_2 and O are broken down chemically, no simpler substance is obtained. Therefore H_2 & O are elements.