

## Homework :-

→ ① Give five major differences between elements and compounds?

Ans:-

Elements	Compounds
* Pure substances which are composed of one type of atoms combined with each other called as elements.	* When two or more elements chemically combine with each other with a definite ratio by mass forms compound.
* Elements cannot be broken down into any other substance.	* Compounds can only be separated through chemical reaction.
* Depending upon their metallic character, they can be characterised under metals, non-metals & metalloid.	* Based upon burning nature, we can find mainly two types of compounds i.e., ionic and co-valent compound.
* Elements are represented by symbols e.g. $\text{Na}$ , $\text{O}_2$ ...	* Compounds are represented by their chemical formulae. e.g.: $\text{Mg} + \text{O}_2 = \text{MgO}$ .
* e.g. $\text{H}_2$ , Chlorine, $\text{C}_{\text{cl}}$ , Iron ( $\text{Fe}$ ) Gold ( $\text{Au}$ ) ...	* e.g. $\text{NaCl}$ , $\text{Mg}(\text{OH})_2$ , $\text{ZnO}$ , $\text{H}_2\text{O}$ ...

② Why we say  $H_2O$  is a compound but  $H_2$  and  $O_2$  are elements?

Ans:-  $H_2$  and  $O_2$  are elements because it contains same type of atom while  $H_2O$  is compound because it is made when two elements (Hydrogen [H], oxygen [O]), combined with each-other in a definite ratio by mass.