

Q1. Mention five characteristics of element.

Ans) Five characteristics of element are

- An element is a pure substance that cannot be broken down into simpler substance.
- It is made up of only one kind of atom which are identical in all aspects, size, mass, composition etc.
- Element occurs in three states of matter - solid element, liquid element and gaseous element.
- Each element is represented by an unique symbol.
- On the basis of physical properties, they have been divided into metals, non-metals and metalloids.

Q2. Why Carbon Dioxide is a compound whereas 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 dioxide (CO_2) has a formula and properties of CO_2 to extinguish fire etc. are quite different from the properties of its constituents carbon and oxygen. Carbon is combustible and oxygen supports combustion, but carbon dioxide extinguishes fire. Hence, carbon dioxide is a compound whereas carbon is an element.