

## An Introduction to Chemistry

### **Q1: Define Chemistry.**

Ans: The branch of science which deals with composition, structure and properties of matter is called chemistry.

### **Q2: Define Physical Chemistry.**

Ans: Physical Chemistry is defined as the branch of chemistry that deals with the relationship between the composition and physical properties of matter along with the changes in them.

### **Q3: What is meant by Organic Chemistry?**

Ans: Organic chemistry is the study of covalent compounds of carbon and hydrogen(hydrocarbons) and their derivatives.

### **Q4: What is the scope of organic chemistry?**

Ans: Scope of this branch covers petroleum, petrochemicals and pharmaceutical industries.

### **Q5: Define Inorganic chemistry.**

Ans: Inorganic chemistry deals with the study of all elements and their compounds except those of compounds of carbon and hydrogen and their derivatives.

### **Q6: Define biochemistry.**

Ans: It is the branch of chemistry in which we study the structure, composition, and chemical reactions of substances found in living organisms.

### **Q7: Define Industrial Chemistry.**

Ans: The branch of chemistry that deals with the manufacturing of chemical compounds on commercial scale, is called industrial chemistry.

**Q8: Define Nuclear Chemistry.**

Ans: The branch of chemistry that deals with the radioactive, nuclear processes and properties.

**Q9: Define Environmental Chemistry.**

Ans: It is the branch of chemistry in which we study about components of the environment and the effects of human activities on the environment.

**Q10: Define Analytical Chemistry.**

Ans: Analytical chemistry is the branch of chemistry that deals with separation and analysis of a sample to identify its components.

**Q11: What is the difference between qualitative and quantitative analysis?**

Ans: Qualitative analysis provides the identity of substances (composition of chemical species.)

Quantitative analysis determines the amount of each component present in the sample.

**Q12: Define the following terms Matter, substance and mixture.**

Ans: **Matter:** Anything which has mass and occupies space is called matter.

**Substance:** A piece of pure matter is called substance. Every substance has fixed composition and specific properties,

**Mixture:** Impure matter is called mixture; Which can be homogeneous and heterogeneous in its composition.

**Q13: What is meant by physical properties of element?**

Ans: The properties those are associated with the physical state of the substance are called physical properties. i.e., color, smell, taste, hardness, shape of crystal etc.

**Q14: What is meant by chemical properties of element?**

Ans: The chemical properties depend upon the composition of the substance. When a substance undergoes a chemical change, its composition changes and new substance are formed.

**Q15: Define element.**

Ans: It is a substance made up of same type of atoms, having same atomic number and cannot be decomposed into simple substance by ordinary chemical means.