

## BRAIN INTERNATIONAL SCHOOL

**Chemistry Assignment**

**Class: IX**

**NOV'24**

### CHAPTER 3: Atoms and Molecules

#### 1. MULTIPLE CHOICE QUESTIONS:

(i) . What is the chemical formula of sodium carbonate?

- (a)  $\text{Na}_2\text{CO}_3$                       (b)  $\text{NaHCO}_3$                       (c)  $\text{NaCO}_3$                       (d)  $\text{Na}_2\text{HCO}_3$

(ii) Which of the following is the correct pair of atom and its atomic symbol?

- (a) Sulphur – Su              (b) Potassium – P              (c) Phosphorus –P              (d) Sodium- S

(iii) Atomic mass of Chlorine is \_\_\_\_\_ (u)

- (a) 34                      (b) 34.5                      (c) 35                      (d) 35.5

#### 2. ASSERTION-REASON QUESTIONS:

Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below :

- (i) Both A and R are true and R is correct explanation of the assertion.  
(ii) Both A and R are true but R is not the correct explanation of the assertion.  
(iii) A is true but R is false.  
(iv) A is false but R is true.

(a) **Assertion :** Atoms always combine to form molecule and ions.

**Reason :** Atoms of most element are not able to exist independently.

(b) **Assertion :** Atomicity of ozone is three while that of oxygen is two.

**Reason :** Atomicity is the number of atoms constituting a molecule.

#### 3. Answer the following questions:

1. Explain the law of constant proportion.
2. Write the atomicity of Phosphorus and Nitrogen .
3. What is an ion ?
4. Define Valency and write the valency of the following :  
(i) Chlorine              (ii) Aluminium              (iii) Carbon              (iv) Oxygen
5. What is a polyatomic ion ? Give an example.
6. What is formula unit mass ? How is it different from molecular mass?