

**BRAIN INTERNATIONAL SCHOOL**

**Chemistry Assignment**

**Class: IX**

**October'18**

**Chapter -3: Atoms and Molecules.**

**Q1. Answer the following questions briefly:**

- i. We cannot say an atom of water . Why ?
- ii. What is wrong in saying 'one mole of nitrogen '?
- iii. What is the difference between  $\text{CO}_2$  and  $2\text{CO}_2$  ?
- iv. How many moles are there in 0.5g of sodium ?
- v. An element 'A' has valency +2 , while another element 'B' has valency -3. Give the formula of their compound formed when 'A' reacts with 'B'.
- vi. What is the formula mass ? Calculate formula mass of NaCl.
- vii. Give three significance of mole .
- viii. Calculate the mass percent of each element of sodium chloride in one mole of it .
- ix. How many (a) molecules (b) hydrogen atoms (c) oxygen atoms are there in 0.5mol of water ?
- x. Calculate the number of particles in each of the following :  
(a) 46 g of Na atom (b) 8g of  $\text{O}_2$  molecules (c) 0.1 moles of carbon atom
- xi. Differentiate between the actual mass of a molecule and gram molecular mass.
- xii. Define the following :  
(a) Atom (b) Atomic mass (iii) Molecular mass.