**Atoms & Molecules 9th**

1. Give an example of a triatomic molecule of an element.
2. Define atomicity.
3. Write the atomicity of the following molecules:  
   (i) Sulphur  
   (ii) Phosphorus
4. The atomic number of three elements A, B and C are 9, 10 and 13 respectively. Which of them will form a cation?
5. What is wrong in saying ‘one mole of nitrogen’?
6. Name two scientists who established the laws of chemical combination?
7. Which of the following have maximum number of atoms?
8. 18g of H2O (b) 18g of O2
9. 18g of CO2 (d) 18g of CO2
10. Which of the following would weigh highest?

(a) 0.2 moles of Sucrose(C12H22O11)

(b) 2 moles of CO2

(c) 2 moles of CaCO3

(d) 10 moles of O2

1. What is the chemical formula of sodium carbonate?

(a) Na2CO3

(b) NaHCO3

(c) NaCO3

(d) Na2HCO3

1. 46 gm of sodium is equal to ————-

(a) 7 moles

(b) 1.5 moles

(c) 2 moles

(d) 1 mole

1. What is the value of Avogadro’s number?

(a) 6.02 x 10-23

(b) 6.02 x 1023

(c) 6.02 x 10-22

(d) 6.02 x 1022

1. Which of the following represents the correct relation between Avogadro's number (No), number of particles (N) and moles (n)?

(a) n = N / No

(b) n = No / N

(c) n = N No

(d) all are correct

1. Which of the following correctly represents 360g of water?

(i) 2 moles of water (ii) 20 moles of water

(iii) 6.022 **×** 1023 molecules of water (iv) 1.2044 **×** 1025 molecules of water

(a) (i)

(b) (i) and (iv)

(c) (ii) and (iii)

(d) (ii) and (iv)

1. Molecular mass is defined as the:  
   (a) Mass of one molecule of any substance compared with the mass of one atom of C – 12  
   (b) Mass of one atom compared with the mass of one atom of hydrogen  
   (c) Mass of one atom compared with the mass of one molecule  
   (d) None of the above
2. 1 u or 1 amu means

(a) 1/12th mass of C-12 atoms

(b) Mass of C-12 atom

(c) Mass of O-16 atom

(d) Mass of Hydrogen molecule