

## ATOMS AND MOLECULES

## Multiple Choice Questions

- Q.1: Select the ionic compound -  
(a) Sulphur molecule, S<sub>8</sub> (b) Phosphorous molecule, P<sub>4</sub>  
(c) Methane, CH<sub>4</sub> (d) Copper nitrate, Cu(NO<sub>3</sub>)<sub>2</sub>
- Q.2: Which of the following does not change when a chemical reaction takes place?  
(a) volume (b) mass (c) physical properties (d) chemical properties
- Q.3: One atomic mass unit is equal to weight of -  
(a) one atom of hydrogen (b) 1/16th of oxygen atom  
(c) 1/12th of natural carbon atom (d) 1/12th of C-12 isotope of carbon.
- Q.4: Molecules of the following elements are made up of only one atom of that element -  
(a) iron (b) sodium (c) helium (d) chlorine
- Q.5: Formula unit mass is used for the mass of the following compound -  
(a) CaO (b) H<sub>2</sub>S (c) CCl<sub>4</sub> (d) CH<sub>4</sub>
- Q.6: Which one of the following does not represent correct molecular formula of a compound -  
(a) 2CH<sub>3</sub> (b) CH<sub>4</sub> (c) CH<sub>3</sub>OH (d) (CH<sub>3</sub>)<sub>2</sub>
- Q.7: A mole does not signify -  
(a) atomic mass unit (b) 6.022 x 10<sup>23</sup> ions  
(c) 22.4 liters of gas at STP (d) gram molecular mass
- Q.8: Which one of the following is not equal to gram molecular mass of hydrogen -  
(a) 2 gm (b) 6.022 x 10<sup>23</sup> atoms of hydrogen  
(c) 6.022 x 10<sup>23</sup> molecules of hydrogen (d) 1 mole of hydrogen.
- Q.9: Which of the following does not represent molar mass of a substance?  
(a) 1 mole of HCl (b) 6.022 x 10<sup>23</sup> molecules of helium  
(c) 16 gm of O<sub>2</sub> (d) 44 gm of CO<sub>2</sub>
- Q.10: Formula mass is not used in case of -  
(a) NaCl (b) MgCl<sub>2</sub> (c) CCl<sub>4</sub> (d) CaO
- Q.11: The unit of atomic mass is -  
(a) gm (b) u (c) liter (d) mp
- Q.12: a substance in which all atoms are alike is called an -  
(a) molecule (b) ion (c) homogeneous (d) element
- Q.13: Formula mass and not molecular mass is used for substance whose constituent particles are -  
(a) ions, (b) similar (c) uniform (d) none of these
- Q.14: How many atoms does one mole of S<sub>8</sub> contain?  
(a) 6.023 x 10<sup>23</sup> (b) 96 (c) 8 x 6.023 x 10<sup>23</sup> (d) 1
- Q.15: Molecules without a charged valency are contained by only -  
(a) metals (b) non-metals (c) gases (d) none of these.

Ans: 1-d, 2-b, 3-d, 4-c, 5-a, 6-a, 7-a, 8-b, 9-c, 10-a, 11-b, 12-d, 13-a, 14-c, 15-b.