

## MCQ's 9th Atoms and Molecules, Moles, Dalton's atomic theory

1. Which of the following has the smallest mass ?  
 (A) 4 g of He (B)  $6.023 \times 10^{23}$  atoms of He  
 (C) 1 atom of He (D) 1 mole atoms of He
2. The number of carbon atoms in 1 g of  $\text{CaCO}_3$  is -  
 (A)  $6.023 \times 10^{23}$  (B)  $6.023 \times 10^{21}$  (C)  $3.0125 \times 10^{22}$  (D)  $1.204 \times 10^{23}$
3.  $6.023 \times 10^{20}$  atoms of silver (Atomic mass = 108 u) weight -  
 (A)  $108 \times 10^3$  g (B) 108 g (C) 0.108 g (D) 10.8 g
4. Which of the following has largest number of molecules ?  
 (A) 8 g of  $\text{CH}_4$  (B) 4.4 g of  $\text{CO}_2$   
 (C) 34.2 g of  $\text{C}_{12}\text{H}_{22}\text{O}_{11}$  (D) 2 g of  $\text{H}_2$
5. Which of the following contains one mole molecules of the substance ?  
 (A) 16 g Oxygen (B) 7 g Nitrogen (C) 2 g Hydrogen (D) 36 g Water.
6. The number of molecules in 16.0 g of oxygen is -  
 (A)  $6.02 \times 10^{23}$  (B)  $6.02 \times 10^{-23}$  (C)  $3.01 \times 10^{-23}$  (D)  $3.01 \times 10^{23}$
7. The volume of one mole of a gas at normal temperature and pressure is -  
 (A) 11.2 litres (B) 22.4 litres (C) 100 litres (D) None of these
8. The number of gram atoms in 8 g of he are -  
 (A) 2 (B)  $1.204 \times 10^{24}$  (C)  $3.1 \times 10^{23}$  (D) None of these
9. The percentage of hydrogen in  $\text{H}_2\text{O}$  is -  
 (A) 8.88 (B) 11.12 (C) 20.60 (D) 80.0
10. The charge in coulombs of 1 gram ion of  $\text{N}^{3-}$  is (the charge on an electron is  $1.602 \times 10^{-19}$  C) -  
 (A)  $2.894 \times 10^5$  C (B)  $3.894 \times 10^5$  C (C)  $2.894 \times 10^6$  C (D) None of these

### Solution

|      |   |   |   |   |   |   |   |   |   |    |
|------|---|---|---|---|---|---|---|---|---|----|
| Qus. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Ans. | C | B | C | D | C | D | B | A | B | A  |