

DAILY PRACTICE PROBLEM (DPP - 01)**PHYSICAL CHEMISTRY**

Topic – Mole concepts

DPP No. – 1



- Q.1 Which of the following will contain same number of atoms as 20g of calcium?
- (1) 24g magnesium (2) 12g carbon
(3) 8g oxygen gas (4) 16g oxygen atom
- Q.2 Which of the following contains the least number of molecules ?
- (1) 4.4 gm CO₂ (2) 3.4 gm NH₃
(3) 1.6 gm CH₄ (4) 3.2 gm SO₂
- Q.3 The number of molecule in 4.25 gms of NH₃ is -
- (1) 1.505×10^{23} (2) 3.01×10^{23} (3) 6.02×10^{23} (4) None of these
- Q.4 If 3.01×10^{20} molecules are removed from 98 mg. of H₂SO₄, then the number of moles of H₂SO₄ left are
- (1) 0.1×10^{-3} (2) 0.5×10^{-3} (3) 1.66×10^{-3} (4) 9.95×10^{-2}
- Q.5 5.6 lt. of oxygen at STP contains -
- (1) 6.02×10^{23} atoms (2) 3.01×10^{23} atoms
(3) 1.505×10^{23} atoms (4) 0.7525×10^{23} atoms
- Q.6 The actual weight of a molecule of water is -
- (1) 18 gm (2) 2.99×10^{-23} gm
(3) both (1) & (2) are correct (4) None of these
- Q.7 Which of the following has the highest mass ?
- (1) 1 g atom of C (2) $\frac{1}{2}$ mole of CH₄
(3) 10 ml of water (4) 3.011×10^{23} atoms of oxygen
- Q.8 Which of the following contains greatest number of oxygen atoms ?
- (1) 1 g of O (2) 1 g of O₂
(3) 1 g of O₃ (4) all have the same number of atoms
- Q.9 Sum of number of protons, electrons and neutrons in 12gm of $^{12}_6C$ is :-
- (1) 1.8 (2) 12.044×10^{23}
(3) 1.084×10^{25} (4) 10.84×10^{23}
- Q.10 If V ml of the vapours of substance at NTP weight W g. Then molecular wt. of substance is:-
- (1) $(W/V) \times 22400$ (2) $\frac{V}{W} \times 22.4$
(3) $(W - V) \times 22400$ (4) $\frac{W \times 1}{V \times 22400}$

Answer key

Q.	1	2	3	4	5	6	7	8	9	10
Ans:	3	4	1	2	2	2	1	4	3	1