

ECAT Chemistry Chapter 1 Basic Concepts

Sr	Questions	Answers Choice
1	The percentage of H is the highest in	A. CH_4 B. NH_3 C. H_2SO_4 D. $\text{C}_6\text{H}_{12}\text{O}_6$
2	The value of R (General Gas Constant) is	A. $8.3134 \text{ JK}^{-1}\text{mol}^{-1}$ B. $1.987 \text{ Cal K}^{-1}\text{mol}^{-1}$ C. Both a and b D. $1.987 \text{ JK}^{-1}\text{mol}^{-1}$
3	The number of subatomic particles in atoms discovered is more than:	A. 110 B. 100 C. 125 D. 90
4	The number of moles of CO_2 which contain 8.0 g of oxygen	A. 0.25 B. 0.50 C. 1.0 D. 1.50

5	0.5 mole of CH ₄ and 0.5 mole of SO ₂ gases have equal	A. Volume B. Mass in grams C. Total number of atoms D. Number of molecules
6	NH ₃ , HCl, H ₂ O, H ₂ are:	A. Diatomic molecules B. Poly-atomic molecules C. Mono-atomic molecules D. Hetero atomic molecules
7	Isotopes differ in the	A. Number of neutrons B. Number of protons C. Number of electrons D. Number of atoms
8	Atoms can be evident by use of electron microscope, field ionization microscope and:	A. x-rays B. Video camera C. Telescope D. Compound microscope
9	A beaker contains 9 grams of water. The number of H-atoms is	A. 6.02×10^{23} B. 3.01×10^{23} C. 6.02×10^{24} D. 3.01×10^{24}
10	The empirical formula of a liquid compound is known to be C ₂ H ₄ O. What other information is needed to work out its molecular formula?	A. The percentage composition of the compound B. The relative molecular mass of the compound C. The density of the compound D. The volume occupied by one mole of the compound
11	Question Image	A. 99.2% B. 99.5% C. 90.5% D. 96.2%
12	How many moles of oxygen, O ₂ are needed for the complete combustion of two moles of butane C ₄ H ₁₀ ?	A. 2 B. 8 C. 10 D. 13
13	Hemoglobin contains nearly:	A. 10,000 atoms B. 100 atoms C. 1000 atoms D. 1 atom
14	The mass of one mole of proton is	A. 1.008 g B. 0.184 g C. 1.673 g D. 1.008 mg
15	3.01×10^{22} Ag ⁺ ions is present in	A. 85 grams AgNO₃ B. 0.85 g AgNO₃ C. 8.5 g AgNO₃ D. 18.5 g AgNO₃
16	What is the volume in cm ³ of 3.01×10^{23} molecules of O ₂ gas at S.T.P	A. 1000 cm³ B. 11000 cm³ C. 1120 cm³ D. 11200 cm³

A. Is taken in lesser quantity in grams as

17	A limiting reactant is the one which	A. Is taken in lesser quantity in grams as compared to other reactants B. Is taken in lesser quantity in volume as compared to other reactants C. Gives the maximum amount of the product which is required D. Gives the minimum amount of the product under consideration
18	CO ⁺ is an example of	A. Stable molecule B. Anionic molecule ion C. Cationic molecular ion D. Free radical
19	The relative atomic mass of chlorine is 35.5. What is the mass of 2 mol of chlorine gas	A. 142 g B. 71 g C. 35.5 g D. 18.75 g
20	Isotopes differ in	A. properties which depend upon mass B. arrangement of electrons in orbitals C. chemical properties D. the extent to which they may be affected in electric fields