

ECAT Chemistry Chapter 1 Basic Concepts

Sr	Questions	Answers Choice
1	One mole of C_2H_5OH contains the number of H-atoms	A. 6.02×10^{23} B. 3.61×10^{24} C. 1.81×10^{24} D. 6.02×10^{24}
2	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
3	The mass of one mole of proton is	A. 1.008 g B. 0.184 g C. 1.673 g D. 1.008 mg
4	How many moles of oxygen, O_2 are needed for the complete combustion of two moles of butane C_4H_{10} ?	A. 2 B. 8 C. 10 D. 13
5	The mass of sulphur which combines with 24 grams oxygen to form SO_2	A. 32 gram B. 24 gram C. 8 gram D. 12 gram
6	The volume occupied by 1.4 g of N_2 at S.T.P is	A. 2.24 dm^3 B. 22.4 dm^3 C. 1.12 dm^3 D. 112 cm^3
7	Isotopes of an element differ in	A. Number of protons B. Number of electrons C. Number of neutrons D. Number of electrons and protons
8	Where energy is released during a reaction it is	A. Exothermic reaction B. Endothermic reaction C. A free radical reaction D. A bond breaking reaction
9	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
10	Who one mole of each of the following is completely burned in oxygen, which gives the largest mass of carbon dioxide?	A. Carbon monoxide B. Diamond C. Ethane D. Methane
11	The number of subatomic particles in atoms sidcovered is more than:	A. 110 B. 100 C. 125 D. 90
12	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
13	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}
14	0.5 mole of CH_4 and 0.5 mole of SO_2 gases have equal	A. Volume B. Mass is gram C. Total number of atoms

D. Number of molecules

15	Which has greater number of moles	A. 0.1 g sodium B. 6.02×10^{20} atoms of magnesium C. $20 \text{ cm}^3 \times 0.1 \text{ mole per dm}^3$ of NaOH D. 12.2 dm^3 of nitrogen at standard
16	A ring contains 3 gram diamond. The number of C-atoms which a ring contains is	A. 3.01×10^{23} B. 1.5×10^{23} C. 6.02×10^{24} D. 3.01×10^{24}
17	The empirical formula of a compound is CH_2O . What may be the compound	A. $\text{C}_2\text{H}_5\text{OH}$ B. $\text{C}_6\text{H}_5\text{OH}$ C. HCOOH
18	$3.01 \times 10^{22} \text{Ag}^+$ ions is present in	A. 85 grams AgNO_3 B. 0.85 g AgNO_3 C. 8.5 g AgNO_3 D. 18.5 g AgNO_3
19	Which one of the following step is not involved in determination of empirical formula	A. Determination % of each element B. Determination of gram atom of each element C. Determination of isotopes of each element D. Determination of atomic ratio of element
20	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