



## ECAT Chemistry Chapter 1 Basic Concepts

Sr	Questions	Answers Choice
1	The empirical formula of a compound is $\text{CH}_2\text{O}$ . What may be the compound	A. $\text{C}_2\text{H}_5\text{OH}$ B. $\text{C}_6\text{H}_5\text{OH}$ C. $\text{HCOOH}$
2	The atomic mass is measured in atomic mass unit (a.m.u.) which is equal to	A. $1.661 \times 10^{-27} \text{ Kg}$ B. $1.661 \times 10^{-24} \text{ Kg}$ C. $1.661 \times 10^{-27} \text{ g}$ D. $1.661 \times 10^{-24} \text{ mg}$
3	Which statement about molecule is incorrect ?	A. Molecules of a substance are similar B. Hemoglobin is a homo atomic molecules C. Oxygen molecule is a macro molecule D. It exist independently
4	A molecular ion is formed by	A. Passing a high energy electron beam through gaseous molecule B. Dissolving a salt i dilute acid C. Passing electric current through molten salt D. Passing electricity through aqueous solutions
5	The mass of one mole of proton is	A. 1.008 g B. 0.184 g C. 1.673 g D. 1.008 mg
6	Isotopes differ in the	A. Number of neutrons B. Number of protons C. Number of electrons D. Number of atoms
7	Question Image 	A. $300 \text{ cm}^3$ B. $200 \text{ cm}^3$ C. $150 \text{ cm}^3$ D. $100 \text{ cm}^3$
8	X-ray work has shown that the diameters of atom are of the order of	A. $8 \times 10^{-10} \text{ m}$ B. $2 \times 10^{-10} \text{ m}$ C. $8 \times 10^{-8} \text{ m}$ D. $2 \times 10^{-8} \text{ m}$
9	The value of R(General Gas Constant) is	A. $8.3134 \text{ JK}^{-1} \text{ mole}^{-1}$ B. $1.987 \text{ Cal K}^{-1} \text{ mole}^{-1}$

initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial; Mole</span><sup><span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif;">-1</span></sup></o:p></span></sup></p>

C. Both a and b

D. <p class="MsoNormal"><span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">1.987 JK</span><sup><span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif;">-1</span></sup><span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">mole</span><sup><span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif;">-1</span></sup></o:p></p>

10	A limiting reactant is one which according to the stoichiometric equation	A. Has excess mass B. Has least mass C. Has excess number of moles D. Has least number of moles
11	A compound having empirical formula $C_3H_3O$ and its molecular mass is 110.02. Its molecular formula is	A. $C_3H_3O$ B. $C_6H_6O_2$ C. $C_9H_9O_3$ D. $C_3H_6O_2$
12	What is the maximum mass of aluminium which can be obtained from 240g of aluminium oxide $Al_2O_3$ ?	A. 26 g B. 127 g C. 51 g D. 108 g
13		A. 99.2% B. 99.5% C. 90.5% D. 96.2%
14	When an electron is added to a uni positive ion we get:	A. Cation B. Molecule C. Neutral atom D. Anion
15	The amount of products obtained from the balanced chemical equation is regarded as	A. Theoretical yield B. Actual yield C. % yield D. Experimental yield
16	One mole of $SO_2$ contains	A. $6.02 \times 10^{23}$ atoms of oxygen B. $18.1 \times 10^{23}$ , molecules of $SO_2$ C. $6.02 \times 10^{23}$ atoms of sulphur D. 4 gram atoms of $SO_2$
17	Which one of the following statements is not correct	A. A molecule is the smallest particle of an element which can exist independently B. He is a molecule of helium C. $S_8$ is a molecule of sulphur D. $O_3$ is a molecule of oxygen
18	The wave length of visible light is 500 nm. In S.I. unit this value is	A. $5 \times 10^{-8}$ m B. $5 \times 10^{-9}$ m C. $500 \times 10^{-7}$ m D. $500 \times 10^{-9}$ m
19	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
20	When 0.1 g of magnesium is treated with an excess of hydrochloric acid, what volume of gas at room temperature and pressure will be produced	A. $10 \text{ cm}^3$ B. $25 \text{ cm}^3$ C. $48 \text{ cm}^3$ D. $100 \text{ cm}^3$