

## ECAT Chemistry Chapter 1 Basic Concepts

Sr	Questions	Answers Choice
1	Question Image	A. N <sub>2</sub> O <sub>4</sub> is limiting reactant B. N <sub>2</sub> H <sub>4</sub> is the limiting reactant C. Reactants are completely converted to the products D. Reactions is reversible
2	1.12 dm <sup>3</sup> of N <sub>2</sub> gas at S.T.P. has mass of N <sub>2</sub> gas	A. 2.8 g B. 2.4 g C. 1.4 g D. 14 g
3	When nitrogen is 5.6 grams in $NO_2$ . then number of moles of $NO_2$ is	A. 0.5 B. 0.4 C. 0.04 D. 0.05
4	The relative abundance of Pb isotopes is 1.5% Pb $^{204}$ , 23.6% Pb $^{206}$ , 22.6% Pb $^{207}$ , 52.3% Pb $^{208}$ The relative atomic mass of Pb is	A. 207.94 B. 208.24 C. 206.94 D. 207.24
5	One of the following statements is incorrect	A. Actual yeild is always less than the theoretical yield B. The formula of a compound is not definite C. Law of conservation of mass is applied in stoictiometry D. Boyles law is applied in stoichiometry
6	Which of the following compounds contains the highest percentage by mass of nitrogen?	A. Ammonia, NH <sub>3</sub> B. Ammonium carbamate, NH <sub>2</sub> CO <sub>2</sub> NH <sub>4</sub> C. Ammonium carbonate, (NH <sub>4</sub> ) <sub>2</sub> CO <sub>3</sub> D. Hydrazine, N <sub>2</sub> H <sub>4</sub>
7	Question Image	A. 0 dm <sup>3</sup> B. 3 dm <sup>3</sup> C. 2 dm <sup>3</sup> D. 3 dm <sup>3</sup>
8	Which of the sub-atomic particles is not charged	A. Electron B. Proton C. Neutron D. All of them
9	A species having positive or negative charge is called:	A. Electron B. Ion C. Proton D. Atom
10	The wave length of visible light is 500 nm. In S.I. unit this value is	A. 5 x 10 <sup>-8</sup> m B. 5 x 10 <sup>-9</sup> m C. 500 x 10 <sup>-7</sup> m D. 500 x 10 <sup>-9</sup> m
11	Which of the following statement is correct for a chemical reaction to occur molecules of substances must	A. Collide with each other     B. Collide with energy more than activation energy     C. Collide with energy less than activation energy     D. Collide with high frequency
12	Which statement about an atom is true ?	A. The number of neutrons is not equal to number of electrons     B. Mass number is less than atomic number     C. All the elements have only one mass number     D. Mass number can be equal to atomic number
13	The relative abundance of the ions with a definite m/e value is measured by	A. High pressure of vapours     B. Strength of electric current measured     C. Quantity of fast moving electrons     D. Electron gas
4.4	Hemoglobin is 68000 times heavier than:	A. Oxygen atom B. Nitrogen atom

		C. Carbon atom D. Hydrogen atom
15	Question Image	A. 84.84 % B. 89.89% C. 81.81% D. 90.90%
16	One mole of ethanol and one mole of ethane have an equal	A. Mass B. Number of atoms C. Number of electrons D. Number of molecules
17	First atomic theory was put forward by an English school teacher:	A. Maxewell B. Newton C. Sanger D. John Dalton
18	The atomic mass is measured in atomic mass unit (a.m.u.) which is equal to	A. 1.661 x 10 <sup>-27- Kg</sup> B. 1.661 x 10 <sup>-24</sup> Kg C. 1.661 x 10 <sup>-27- g</sup> D. 1.661 x 10 <sup>-24</sup> mg
19	0.5 mole of CH4and 0.5 mole of SO2gases have equal	A. Volume     B. Mass in grams     C. Total number of atoms     D. Number of molecules
20	Molecules of High molecular weight usually greater than 10,000 are called:	A. Macro molecules B. Mega molecules C. Poly molecules D. Gega molecules