

ECAT Chemistry Chapter 1 Basic Concepts

Sr	Questions	Answers Choice
1	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
2	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
3	The empirical formula of a liquid compound is known to be C_2H_4O . 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
4	A species having positive or negative charge is called:	A. Electron B. Ion C. Proton D. Atom
5	In molecules kinetic and potential energies are:	A. Definite B. Moderate C. Indefinite D. None of above
6	Al^{3+} is a symbol for aluminium	A. Atom B. Ion C. Cation D. Anion
7	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
8	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
9	Which one of the following compounds does not have the empirical formula CH_2O ?	A. Ethanoic acid, CH_3CO_2H B. Ethanol, CH_3CH_2OH C. Glucose, $C_6H_{12}O_6$ D. Methanal, $HCHO$
10	The wave length of visible light is 500 nm. In S.I. unit this value is	A. $5 \times 10^{-8} \text{ m}$ B. $5 \times 10^{-9} \text{ m}$ C. $500 \times 10^{-7} \text{ m}$ D. $500 \times 10^{-9} \text{ m}$
11	Question Image	A. 84.84 % B. 89.89 % C. 81.81 % D. 90.90 %
12	The phenomenon of isotropy was first discovered by	A. Soddy B. Rutherford C. Bohr D. Dalton
13	Ascorbic acid contains 40.92% carbon, 4.58%, hydrogen and 54.4% oxygen. The empirical formula is	A. $C_3H_4O_3$ B. $C_2H_4O_3$ C. $C_3H_5O_4$ D. $C_2H_3O_1$

14	One mole of SO ₂ contains	<p>A. 6.02×10^{23} atoms of oxygen</p> <p>B. 18.1×10^{23}, molecules of SO₂</p> <p>C. 6.02×10^{23} atoms of sulphur</p> <p>D. 4 gram atoms of SO₂</p>
15	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	<p>A. 207.94</p> <p>B. 208.24</p> <p>C. 206.94</p> <p>D. 207.24</p>
16	How many moles of oxygen, O ₂ are needed for the complete combustion of two moles of butane C ₄ H ₁₀ ?	<p>A. 2</p> <p>B. 8</p> <p>C. 10</p> <p>D. 13</p>
17	Which of the following statements is not true?	<p>A. Isotopes with even atomic masses are comparatively abundant</p> <p>B. Isotopes with even atomic masses are comparatively abundant</p> <p>C. Isotopes with even atomic masses and even atomic numbers are comparatively abundant</p> <p>D. Isotopes with even atomic masses and odd atomic number are comparatively abundant</p>
18	Which statement about an atom is true ?	<p>A. The number of neutrons is not equal to number of electrons</p> <p>B. Mass number is less than atomic number</p> <p>C. All the elements have only one mass number</p> <p>D. Mass number can be equal to atomic number</p>
19	Objects of the size of an atom can be observed in	<p>A. An electron microscope</p> <p>B. An x-ray spectrum</p> <p>C. Atomic absorption spectrum</p> <p>D. A visible spectrum</p>
20	The atomic mass is measured in atomic mass unit (a.m.u.) which is equal to	<p>A. 1.661×10^{-27} Kg</p> <p>B. 1.661×10^{-24} Kg</p> <p>C. 1.661×10^{-27} g</p> <p>D. 1.661×10^{-24} mg</p>