

ECAT Chemistry Chapter 1 Basic Concepts

Sr	Questions	Answers Choice
1	The isotopes of an element	A. Possess same mass number B. Possess same number of protons C. Do not possess same chemical properties D. May or may not possess same chemical properties
2	When an electron is added to a uni positive ion we get:	A. Cation B. Molecule C. Neutral atom D. Anion
3	Isotopes differ in the	A. Number of neutrons B. Number of protons C. Number of electrons D. Number of atoms
4	3.01 x 10 ²² 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
5	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
6	A molecule of haemoglobin is made up if nearly	A. 10,000 atoms B. 50,000 atoms C. 2500 atoms D. 1500 atoms
7	The empirical formula of a liquid compound is known to be ${\rm C_2H_4O}$. 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
8	The mass of Al ₂ S ₃ formed when 20 grams Al reacts completely with S is	A. 60 g B. 50 g C. 50.55 g D. 55.55 g
9	Al ³⁺ is a symbol for aluminium	A. Atom B. lon C. Cation D. Anion
10	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
11	A ring contains 3 gram diamond. The number of C-atoms which a ring contains is	A. 3.01 x 10 ²³ B. 1.5 x 10 ²³ C. 6.02 x 10 ²⁴ D. 3.01 x 10 ²⁴
12	A balloon contains 0.02 gram of H ₂ gas, it contains H ₂ molecules	A. 6.02 x 10 ²³ B. 3.01 x 10 ²² C. 6.02 x 10 ²¹ D. 3.01 x 10 ²¹
13	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

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	Atoms and molecules can either gain or lose electrons, forming charge particles called:	A. Positrons <o:p> </o:p> B. Photons <o:p> </o:p> C. Insolvermal">Insolvermal
16	Which has greater number of moles	A. 0.1 g sodium B. 6.02 x 10 ²⁰ atoms of magnesium C. 20 cm ³ 0.1 mole per dm ³ of NaOH D. 12.2 dm ³ of nitrogen a standard <div>[A_rNa = 23 Mg = 24, O = 16]</div>
17	The number of moles of CO2which contain 8.0 g of oxygen	A. 0.25 B. 0.50 C. 1.0 D. 1.50
18	X-ray work has shown that the diameters of atom are of the order of	A. 8 x 10 ⁻¹⁰ m B. 2 x 10 ⁻¹⁰ m C. 8 x 10 ⁻⁸ m D. 2 x 10 ⁻⁸ m
19	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
20	Hemoglobin contains nearly:	A. 10,000 atoms B. 100 atoms C. 1000 atoms D. 1 atom