ECAT Chemistry Chapter 1 Basic Concepts

Sr	Questions	Answers Choice
1	The percentage of H is the highest in	A. CH₄ B. NH₃ C. H₂SO₄ D. C₆H₁₂O₆
2	Question Image	A. 32 g B. 3.2 g C. 5.6 g D. 9.6 g
3	The number of subatomic particles in atoms sidcovered is more than:	A. 110 B. 100 C. 125 D. 90
4	Each molecule of haemoglobin is 68000 times heavier than one atom of	A. C B. H C. N D. O
5	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
6	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 cm³ B. 25 cm³ C. 48 cm³ D. 100 cm³
7	The pressure of vapours when sent to the ionization chamber in mass spectrometer is	A. 10⁻⁵to 10⁻⁶torr B. 10⁻⁶to 10⁻⁷torr C. 10⁻⁷to 10⁻⁸torr D. 10⁻³to 10⁻⁴torr
8	When an electron is added to a uni positive ion we get:	A. Cation B. Molecule C. Neutral atom D. Anion
9	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. Ions<o:p></o:p> D. Electrons<o:p></o:p>
10	Which of the following compounds contains the highest percentage by mass of nitrogen?	A. Ammonia, NH₃ B. Ammonium carbamate, NH₂CO₂NH₄ C. Ammonium carbonate, (NH₄) ₂CO₃ D. Hydrazine, N₂H₄
11	The atom of an element is	A. The smallest particle B. The fundamental particle C. The independent particle D. The charged particle
12	Benzene is stable to:	A. Oxidation B. Nitration C. KMnO₄ D. SULPHONATION
13	The volume occupied by 1.4 g of N_2 at S.T.P is	A. 2.24 dm³ B. 22.4 dm³ C. 1.12 dm³ D. 112 cm³
		A. <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:

14	The value of R(General Gas Constant) is	initial; background-origin: initial; background-clip: initial;">8.3134 JK⁻¹<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⁻¹ ^{<o:p></o:p>} B. <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 Cal K⁻¹<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^{-1<o:p></o:p>} C. Both a and b D. <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⁻¹<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⁻¹<o:p></o:p>
15	In molecules kinetic and potential energies are:	A. Definite B. Moderate C. Indefinite D. None of above
16	An ion bearing positive charge is called:	A. Cation B. Positron C. Anion D. None of above
17	Objects of the size of an atom can be observed in	A. An electron microscope B. An x-ray spectrum C. Atomic absorption spectrum D. A visible spectrum
18	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
19	A compound X contains 50% sulphur and 50% oxygen by mass. What is the empirical formula of compound X?	A. SO B. SO₂ C. SO₃ D. SO₄
20	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