

CHEMISTRY-11	Chapter#01 (Complete) Test-6		
	Name:	Class:	ID:
Date: / /	Marks Total: 40	Marks Obtained:	
Time Allowed: 75 Min.			

Maximum Marks: 08

(OBJECTIVE TYPE)

Time Allowed: 15 Min.

NOTE: Tick The Correct Option:

01: Which of the following statements is not true?

- (a) Isotopes with even atomic masses are comparatively abundant.
- (b) Isotopes with odd atomic masses are comparatively abundant.
- (c) Isotopes with even atomic masses and even atomic numbers are comparatively abundant.
- (d) Isotopes with even atomic masses and odd atomic numbers are comparatively abundant.

02: The number of moles of CO₂ which contain 8.0 g of Oxygen:

- (a) 0.25
- (b) 0.50
- (c) 1.0
- (d) 1.50

03: The volume occupied by 1.4 g of N₂ at S.T.P is:

- (a) 2.24 dm³
- (b) 22.4 dm³
- (c) 1.12 dm³
- (d) 112 cm³

01: Palladium has isotopes:

- (a) 6
- (b) 7
- (c) 8
- (d) 9

01: The diameters of atoms are in the order of:

- (a) 2×10^{-9} m
- (b) 0.2×10^{-10} m
- (c) 1×10^{-9} m
- (d) 2×10^{-10} m

02: _____ having groups of atoms are more abundant.

- (a) Cations
- (b) Anions
- (c) Molecular ions
- (d) All

03: The potential difference applied between perforated accelerating plates in Dempster's mass spectrometer is:

- (a) 500 - 1000 V
- (b) 500 - 2000 V
- (c) 1000 - 2000 V
- (d) 1500 - 2000 V

04: In combustion analysis, the % of _____ is calculated by the method of difference.

- (a) Carbon
- (b) Oxygen
- (c) Hydrogen
- (d) None

Maximum Marks: 32

(SUBJECTIVE TYPE)

Time Allowed: 60 Min.

SECTION-I

Q.2: GIVE BRIEF ANSWERS TO THE FOLLOWING QUESTIONS:

(20)

- i. The formation of a uninegative ion is an exothermic reaction. Explain.
- ii. What is relative atomic mass?
- iii. Define mass spectrometer and mass spectrometry.
- iv. What is the function of magnetic field in mass spectrometer?
- v. Differentiate between qualitative and quantitative analyses.
- vi. Define molecular formula. How is it related to empirical formula? Or Molecular formula is a multiple of empirical formula, explain with example.
- vii. Define molar mass.
- viii. Justify that N₂ and CO have same number of electrons, protons and neutrons.

- ix. Calculate the moles of chlorine atoms in 0.822 g of $C_2H_4Cl_2$.
- x. Many chemical reactions taking place in our surroundings involve limiting reactants. Explain.

SECTION-II

NOTE: Attempt All Questions:

(12)

- Q.3: What is a limiting reactant? How does it control the quantity of product formed? explain with three examples.
- Q.3: The combustion analysis of an organic compound shows it to contain 65.44% carbon, 5.50% hydrogen and 29.06% oxygen. What is the empirical formula of the compound? If the molecular mass of this compound is $110.15 \text{ g mol}^{-1}$. Calculate the molecular formula of the compound.
- Q.3: NH_3 gas can be prepared by heating together two solids NH_4Cl and $Ca(OH)_2$. If a mixture containing 100 grams of each solid is heated, then how many grams of NH_3 is produced?

