

Model Paper Chemistry 9th (Fresh)

Time Allowed: 2:30 Hours

Total Marks: 65

Roll No. (in Figures) _____ Superintendent Seal & Signature _____

(In words) _____ Serial No. of the Answer sheet _____

Note: This paper consists of three parts. Attempt each part according to the given instructions.

Section – “A”

Time Allowed: 15 Minutes

Marks: 12

Q.1. Choose the correct option i.e. A, B, C, D and rewrite it in the blank box, opposite to each part.

- i. Branch of chemistry deals with study of Hydrocarbons is called _____
A. Inorganic B. Organic C. Bio D. Physical
- ii. Which of the following compounds have same empirical & Molecular formula?
A. C_6H_6 B. H_2O_2 C. $C_6H_{12}O_6$ D. H_2O
- iii. The gram molecular mass of HNO_3 is _____.
A. 60g B. 100g C. 63g D. 98g
- iv. Chemical formula for Sodium bicarbonate is _____.
A. $NaCO_3$ B. $NaHc$ C. $NaHCO_3$ D. NH_3
- v. Atom which gains electron becomes _____.
A. Molecule B. Free Radical C. Cat ion D. Anion
- vi. Rutherford bombarded gold foil with _____.
A. Hydrogen B. Beta Rays
C. Gamma Rays D. Alpha Rays
- vii. $^{12}_6C$, $^{13}_6C$ and $^{14}_6C$ are the _____ of Carbon
A. Allotropes B. Isobars C. Isotopes D. Isomers
- viii. Electron radiates energy when they jump to _____.
A. Nucleus B. Lower energy Orbit
C. Higher energy Orbit D. Valance shell
- ix. The arrangement of _____ in an atom is called Electronic configuration.
A. Neutrons B. Protons C. Electrons D. None
- x. There are _____ periods in modern periodic table
A. 5 B. 6 C. 7 D. 8
- xi. Ionization energy _____ from left to right in a period.
A. Remains constant B. Decreases C. Increases D. None
- xii. Group VII-A Elements are called _____ family
A. Noble Gas B. Alkali C. Transition D. Halogen

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Marks: 32

Section – “B”

Q.2. Attempt any eight questions.

- (i) Predict the formula for the chlorides of Gallium and Indium
- (ii) Define the terms.
 - a. Representative Elements
 - b. Transition Elements
- (iii) What is Rutherford Model of Atom?
- (iv) Give electronic configuration of Ne (Z=10) and O (Z=8)
- (v) Explain the uses of Isotopes.
- (vi) Differentiate between modern and Mendeleev periodic law.
- (vii) Define Molecular and Empirical formula of a compound.
- (viii) Define an element, compound and mixture?
- (ix) What is the mass of 5 mole of Ice?
- (x) Define shielding effect. Does it vary in a period?
- (xi) Calculate the no of protons, neutrons and electrons in the following.
 - a. $^{107}_{47}\text{Ag}$.
 - b. $^{238}_{92}\text{U}$.

Section – “C”

Marks: 21

Q.3. Attempt any Three Questions.

- I.**
 - (a) Define chemistry. State its four branches. **(4+3)**
 - (b) Calculate mass of carbon atom.

- II.**
 - (a) Discuss the Periods and Groups in modern periodic table. **(4+3)**
 - (b) Calculate the number of molecules in 5 moles of $\text{C}_6\text{H}_{12}\text{O}_6$.

- III.**
 - (a) Explain Neil Bahr's model of atom. **(4+3)**
 - (b) Give the electronic configuration of Al (Z=13), Cl (Z=17), Na (Z=11).

- IV.**
 - (a) Define Gram atomic mass, gram molecular mass and gram formula mass. **(4+3)**
 - (b) How many moles of CO_2 are there in 7.5×10^{24} molecules of his gas?