

# Model Paper Chemistry 9th (Fresh)

Time Allowed: 3 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

# Model Paper Chemistry 9th (Fresh)

Time Allowed: 2:45 Hours

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  $\text{CO}_2$  are there in  $7.5 \times 10^{24}$  molecules of his gas?