MODEL PAPER CHEMISTRY CLASS 9

Note: Attempt all questions of Section A by filling the corresponding bubble on the MCQs RESPONSE SHEET. It is mandatory to return the attempted MCQs sheet to the Superintendent within given time.

SECTION-A

Time: 20 Minutes **Marks:** 12

1. Which one of the following is homogeneous mixture?

A. Smoke
B. Air
C. Fog
D. Smog

2. The gram molecular mass of HNO_3 is:

A. 60
B. 100
C. 63
D. 98

3. Mass of an atom is mostly due to its

A. nucleus.
B. neutrons.
C. electrons.
D. protons.

4. Elements have similar chemical properties in a:

A. Period
B. Group
C. Row
D. Column

5. An atom with a charge is called

A. an electron.
B. a molecule.
C. a metal.
D. an ion.

6. Which of the following ions do not have the electronic configuration of an argon atom?

A. Ca^{+2}
B. S^{-2}
C. K^{+}
D. O^{-2}

7. Ink spreads in water because of:

A. Vapour Pressure
B. Expansion
C. Diffusion
D. Compressibility of water

8. Water droplets in air is an example of solution:

A. Gas in gas
B. Gas in liquid
C. Colloids
D. Liquid in gas

9. When KCl dissolves in water, which of the following will be produced?

A. K and Cl
B. K^+ and Cl^-
C. K and Cl_2
D. K^+ and Cl_2

10. Milk is an example of:

A. Compound
B. Saturated solution
C. Colloids
D. Suspension

11. Oxidation number assigned to manganese in $KMnO_4$ is:

A. +7
B. +3
C. +2
D. +4

12. Which one of the following is NOT an alkali metal?

A. Francium
B. Cesium
C. Rubidium
D. Radium

SECTION-B

Time: 2 Hours 40 Minutes **Marks:** 32

1. Attempt any **EIGHT** of the following short questions. Each question carries 4 marks

i. Differentiate between atomic number and mass number with an example of each.

ii. Write electronic configuration of Na^{11}, Cl^{17}.

iii. Why S-Block elements have two groups only?

iv. Differentiate between atomic radii and covalent radii.

v. Define Covalent Bond. Briefly explain its three types with examples.

vi. Draw the Lewis structure of CO, CCl_4, SO_2 and HCl.

vii. Why a gas is compressible but a solid is not compressible? Give reason.

viii. Explain Molarity with the help of formulae.

ix. Define colloids and suspension. Give examples of each.

x. Define oxidizing and reducing agents. Give one example of each.

xi. Give **FOUR** differences between hard and soft metals.

SECTION-C

Marks: 21

NOTE: Attempt any **THREE** of following questions. Each question carries 7 marks.

2. i. Describe Ruther's Ford Atomic model. 4

ii. Calculate molecular mass of the following compounds. 3

i. Benzene (C_6H_6) ii. Ethane gas (C_2H_6) iii. Iron oxide (Fe_2O_3)

3. i. Define electro negativity. Write two trends of electro negativity in groups and periods. 3

ii. What is dative bond? Explain its formation. 4

4. i. What is evaporation? Write any THREE factors affecting evaporation. 3

ii. Calculate molarity of solution composed of 5.85 grams of potassium iodide (KI) dissolved in enough water to make 0.125 dm^3 of solution. 4

5. i. Explain principle, working and construction of Daniel Cell with the help of labeled diagram. 4

ii. Describe inertness of Nobel metals. 3