

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
- Differentiate between atomic number and mass number with an example of each.
 - Write electronic configuration of Na^{11} , Cl^{17} .
 - Why S-Block elements have two groups only?
 - Differentiate between atomic radii and covalent radii.
 - Define Covalent Bond. Briefly explain its three types with examples.
 - Draw the Lewis structure of CO , CCl_4 , SO_2 and HCl .
 - Why a gas is compressible but a solid is not compressible? Give reason.
 - Explain Molarity with the help of formulae.
 - Define colloids and suspension. Give examples of each.
 - Define oxidizing and reducing agents. Give one example of each.
 - Give **FOUR** differences between hard and soft metals.

SECTION-C

Marks: 21

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

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| 2. | i. Describe Rutherford's 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 |