

CHEMISTRY Class 9th SSC-9th-Swat-2026		Paper Code: _____ Roll No. of the _____
Time: 20 Minutes Multiple Choice Questions 01 Mark for each	Marks: 12 ● ② ③	Student _____ Serial No. Of the Answer Book _____

SECTION-A

Note:

- 1) Attempting all MCQs is compulsory. This paper along with the OMR sheet must be returned to the superintendent after due time.
- 2) Fill the circle (A)(B)(C)(D), which one is correct with blue or black ball point in separate OMR Sheet like ●
- 3) If more than one circle in the OMR sheet is filled then no credit will be given to such answer.

- i. The branch of chemistry which studies chemical reactions occurring in living organisms is
 (A) Environmental chemistry (B) Biochemistry (C) Physical chemistry (D) Inorganic chemistry
- ii. The molecular formula of glucose is:
 (A) CH_2O (B) $\text{C}_3\text{H}_6\text{O}_3$ (C) $\text{C}_6\text{H}_{12}\text{O}_6$ (D) C_6H_6
- iii. The isotope of hydrogen with one neutron is called
 (A) Protium (B) Deuterium (C) Tritium (D) H-3
- iv. Increase in electronegativity across a period is due to:
 (A) Increase in atomic size (B) Decrease in nuclear charge (C) Increase in shielding effect (D) Increase in nuclear charge and decrease in atomic size
- v. According to the octet rule, atoms achieve stability by:
 (A) Losing protons (B) Gaining neutrons (C) Completing eight electrons in valence shell (D) Increasing atomic number
- vi. Ionic compounds conduct electricity when they are:
 (A) Solids only (B) Dissolved in water and molten (C) In gaseous state (D) Dry powder
- vii. Liquids with weak intermolecular forces have:
 (A) Low vapor pressure (B) High boiling point (C) High vapor pressure (D) No evaporation
- viii. The molarity of a solution containing 20g of NaOH dissolved in enough water to make 1 dm^3 solution is
 (A) 0.25 M (B) 0.50 M (C) 1.00 M (D) 2.00 M
- ix. The mixture that can be separated by ordinary filtration is:
 (A) Solution (B) Colloid (C) Suspension (D) Alloy
- x. The oxidation number of chlorine in MgCl_2 is:
 (A) -1 (B) 0 (C) +1 (D) +2
- xi. The particles which move towards the cathode in an electrolytic cell are:
 (A) Anions (B) Electrons (C) Neutral atoms (D) Cations
- xii. Down the group, ionization energy of both alkali and alkaline earth metals.
 (A) Increases (B) Decreases (C) Remains same (D) Becomes zero

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CHEMISTRY Class 9th

SSC-9th-Swat-2026

Note: Time allowed for section B and C is 2 hours and 40 minutes.

SECTION "B"**Marks: 32**

II. Attempt any EIGHT Parts out of the following. Each Part carries equal marks.

1. Why are chemical formulas used for compounds but not for mixtures? Explain with examples
2. Write the electronic configuration of the following elements:
a) ${}_6\text{C}$ b) ${}_9\text{F}$ c) ${}_{14}\text{Si}$ d) ${}_{18}\text{Ar}$
3. What is the effect of shielding on the nuclear charge felt by valence electrons in sodium and chlorine elements?
4. Describe the covalent bond in chlorine (Cl_2) and carbon dioxide (CO_2) by stating the type of bond in each.
5. Using electronic configuration, explain how an aluminum atom forms Al^{3+} and why it loses electrons.
6. If the volume of a gas is 3 dm^3 at 250K , calculate the temperature at which its volume becomes 6 dm^3 , assuming pressure remains constant.
7. Differentiate between saturated and unsaturated solutions in four points.
8. Predict whether grease will dissolve in petrol or in water. Explain your answer on the basis of "like dissolves like".
9. Describe the method of electroplating. How does electroplating prevent corrosion of metals?
10. Why is zinc plating (galvanization) commonly used for steel? Give two advantages.
11. Discuss four properties of gold (Au) that make it highly valuable commercially.

SECTION "C"**Marks: 21**

Note: Attempt any THREE questions of the following. Each question carries equal Marks.

12. (a) Explain in four points how did Rutherford show that most of the volume occupied by an atom is empty. 4
(b) How many molecules are present in 1.5 moles of nitrogen gas (N_2)? 3
13. (a) What is covalent bond? Explain how is a single covalent bond formed. Give two examples. 4
(b) What is period in periodic table? How does the number of valence electrons change as we move from group IA to group VIIIA? Name any two elements of group-IA. 3
14. (a) Define liquid in gas solution. How is fog formed in air? Also mention solute and solvent in fog. 4
(b) What is crystalline solid? Differentiate between amorphous and crystalline solids with respect to shape and structure. 3
15. (a) With the help of a simple sketch, show the construction of a Daniel cell. Label the electrodes and mark the direction of electron flow. 4
(b) Write the balanced chemical equation when chlorine gas is added to the solution of hydrogen sulfide. Name the type of chemical reaction and the product(s) formed. 3