ICSE Class 10 Chemistry – Mock Paper 2026 (Hard)

Time: 2 Hours | **Marks:** 80

Section I (40)

Q1. MCQ (10)

1. Equivalent weight of H ,SO „ in acid-base reactions is: (a)98 (b)49 (c)32 (d)18
2. Correct order of increasing pH: (a)NaOH<Water<HCl (b)HCl<Water<NaOH (c)Water<HCl<NaOH (d)NaOH<HCl<Water
3. Amphoteric oxide among these is: (a) Na ,O (b) MgO (c) Al ,O ƒ (d) SO ,
4. In Fe ,O ƒ, oxidation number of Fe is: (a)+2 (b)+3 (c)+4 (d)+6
5. Best method to protect underground iron pipes: (a) painting (b) galvanizing (c) cathodic protection (d) alloying
6. A saturated hydrocarbon with 4 carbon atoms is: (a) butene (b) butyne (c) butane (d) benzene
7. During electrolysis of CuSO „ using copper electrodes, concentration of solution: (a) increases (b) decreases (c) unchanged (d) first increases then decreases
8. Strong dehydrating agent: (a) dil. HCl (b) conc. H ,SO „ (c) dil. HNO ƒ (d) NaOH
9. Displacement reaction will occur in: (a) Cu + ZnSO „ (b) Zn + CuSO „ (c) Ag + NaCl (d) Hg + FeSO „
10. Functional group in aldehydes: (a)-OH (b)-COOH (c)-CHO (d)-CO-

Q2. Fill blanks (5)

1. 2NaCl + 2H ,O !’ _____ + _____ + Cl ,
2. Formula of slaked lime is _____.
3. Carbonyl chloride is commonly called _____ gas.
4. General formula of alkenes is _____.
5. One ore of zinc is _____.

Q3. Assertion–Reason (5)

For each, choose: (a) both true and R explains A, (b) both true but R not explanation, (c) A true R false, (d) A false R true.

1. A: Aluminium utensils resist corrosion. R: Aluminium forms protective oxide layer.
2. A: Ionic compounds conduct in solid state. R: Ions are free in solid lattice.
3. A: Ethene decolourizes bromine water. R: Ethene is unsaturated.
4. A: pH of blood is around 7.4. R: Blood is slightly basic.
5. A: Graphite is soft. R: It has layers with weak forces between them.

Q4. Structured short answers (20)

1. Write balanced equations for conversion: CaCO ƒ !’ CaO !’ Ca(OH) , !’ CaCO ƒ. (4)
2. Explain electrolytic refining of copper with diagram-label points. (4)
3. Distinguish between roasting and calcination with one equation each. (4)
4. Explain oxidizing vs reducing agents with one redox equation and identify both agents. (4)
5. Define esterification. Write equation for ethanol + ethanoic acid and state catalyst/conditions. (4)

Section II (40) – Attempt any four

Q5 (10)

Detailed pH and neutralization: buffer idea, practical applications, and calculations-based conceptual questions.

Q6 (10)

Metallurgy and reactivity series: extraction methods based on reactivity; corrosion and prevention.

Q7 (10)

Chemical bonding and structure-property relationship: ionic, covalent, metallic and giant covalent substances.

Q8 (10)

Electrochemistry: electrolysis laws (conceptual), electrode processes, electroplating defects and

controls.

Q9 (10)

Organic chemistry: homologous series, isomerism (intro), functional groups and reaction patterns.

Quick Key (Objective)

Q1: 1-b,2-b,3-c,4-b,5-c,6-c,7-c,8-b,9-b,10-c