

# ICSE CLASS 10 CHEMISTRY

## MOCK BOARD EXAMINATION – 2026

\*\*Time Allowed:\*\* 2 Hours

\*\*Maximum Marks:\*\* 80

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### INSTRUCTIONS

- Attempt all questions from Section I.
- Attempt any four questions from Section II.
- Marks are indicated in brackets.

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### SECTION I (40 Marks)

#### Question 1 (10)

Choose the correct answer:

1. Gas evolved when Zn reacts with dilute HCl:  
(a) O<sub>2</sub> , (b) H<sub>2</sub> , (c) Cl<sub>2</sub> , (d) SO<sub>2</sub> ,
2. Coating iron with zinc is:  
(a) Alloying (b) Electroplating (c) Galvanization (d) Vulcanization
3. Valency of sulphate radical:  
(a) 1 (b) 2 (c) 3 (d) 4
4. Strong acid:  
(a) CH<sub>3</sub>COOH (b) H<sub>2</sub>CO<sub>3</sub> (c) HCl (d) HCOOH
5. pH of neutral solution:  
(a) 0 (b) 7 (c) 10 (d) 14
6. Bond in NaCl:  
(a) Covalent (b) Ionic (c) Coordinate (d) Metallic
7. CH<sub>3</sub>COOH belongs to:  
(a) Alkanes (b) Alcohols (c) Carboxylic acids (d) Esters
8. Gas at cathode during electrolysis of acidified water:  
(a) O<sub>2</sub> , (b) H<sub>2</sub> , (c) N<sub>2</sub> , (d) Cl<sub>2</sub> ,
9. Ore of aluminium:  
(a) Haematite (b) Bauxite (c) Zinc blende (d) Calamine
10. Reducing agent:  
(a) O<sub>2</sub> , (b) Cl<sub>2</sub> , (c) H<sub>2</sub> , (d) HNO<sub>3</sub>

#### Question 2 (5)

Fill in the blanks:

1. Formula of ammonium sulphate: \_\_\_\_\_
2. Common name of calcium oxide: \_\_\_\_\_
3. Gas that turns lime water milky: \_\_\_\_\_
4. Loss of electrons is called: \_\_\_\_\_
5. Rust is chemically: \_\_\_\_\_

#### Question 3 (5)

State True/False:

1. All covalent compounds conduct electricity in molten state.
2. Blue litmus turns red in acidic solution.
3. Graphite is a good conductor.
4. Hydrogen is less reactive than copper.
5. Distillation can separate pure water from salt solution.

#### Question 4 (5)

Match:

(i) NaOH, (ii) CaOCl<sub>2</sub>, (iii) H<sub>2</sub>SO<sub>4</sub>, (iv) NH<sub>4</sub>OH, (v) Phenolphthalein

with: (a) Bleaching powder preparation, (b) Caustic soda, (c) Oil of vitriol, (d) Reagent for alkalis, (e) Turns pink in base

### Question 5 (15)

Answer briefly:

1. Define oxidation and reduction (electron transfer).
2. Balance:
  - $\text{Mg} + \text{O}_2 \rightarrow \text{MgO}$
  - $\text{Zn} + \text{H}_2\text{SO}_4 \rightarrow \text{ZnSO}_4 + \text{H}_2$
3. Two differences: ionic vs covalent compounds.
4. Why is conc. H<sub>2</sub>SO<sub>4</sub> called dehydrating agent? Give example.
5. Define electroplating and give two uses.

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## SECTION II (40 Marks)

(Attempt any four)

### Question 6 (10)

1. Define acids, bases, salts with examples.
2. Define pH and pH ranges for acidic/basic/neutral solutions.
3. Show equations to convert NaCl to NaOH and HCl gas.

### Question 7 (10)

1. Differentiate:
  - Endothermic vs exothermic
  - Combination vs decomposition
2. Explain displacement reaction using Fe and CuSO<sub>4</sub>.
3. Ionic equation for HCl + NaOH neutralization.

### Question 8 (10)

1. Define metallurgy and main extraction steps.
2. Why aluminium is extracted by electrolysis.
3. Give reasons:
  - Gold in native state
  - Zinc used for galvanization
  - Alloying improves properties

### Question 9 (10)

1. Draw electron dot structures of H<sub>2</sub>O and NH<sub>3</sub>.
2. Define valency and oxidation number.
3. Calculate molecular masses of CaCO<sub>3</sub> and H<sub>2</sub>SO<sub>4</sub>.

### Question 10 (10)

1. Name and one use each: ethanol, ethanoic acid, methane, propanone.
2. Define homologous series and write four characteristics.
3. Differentiate saturated and unsaturated hydrocarbons.