

Board of Secondary Education

Subject: Chemistry

Class: 10th

Time Allowed: 3 Hours

Marks: 75

Year: Sample 2024

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SECTION A – MCQs (12 Marks)  
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Q1. Choose the correct answer:

i) Atomic number of Oxygen is:

a) 6   b) 7   c) 8   d) 9

ii) Which of the following is an alkali metal?

a) Sodium   b) Calcium   c) Aluminum   d) Iron

iii) pH of neutral solution is:

a) 0   b) 7   c) 14   d) 5

(... total 12 MCQs)

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SECTION B – Short Questions (25 Marks)  
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Q2. Answer ANY FIVE:

i) Define atomic number and mass number.

ii) State Mendeleev's periodic law.

iii) Write two properties of acids.

iv) Balance the equation:  $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$

v) What is the difference between ionic and covalent bond?

vi) Write uses of electrolysis.

vii) Define molar mass with an example.

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#### SECTION C – Long Questions (38 Marks)

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Q3. Explain the modern periodic table in detail.

Q4. A compound contains 40% carbon, 6.7% hydrogen and 53.3% oxygen. Find its empirical formula.

Q5. Explain the structure and properties of NaCl.

Q6. Discuss the industrial preparation of ammonia by Haber's process.