

BOARD-PATTERN PRACTICE PAPER · CBSE CLASS 10

Metals and Non-metals

Science · Chapter 3 · Matches current CBSE blueprint · Each question PYQ-sourced where indicated

DATE _____	TOTAL MARKS 30	DURATION 90 min	MARKING As per board	TARGET ≥ 24/30
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GENERAL INSTRUCTIONS

1. All questions are compulsory.
2. Section A has objective-type questions of 1 mark each.
3. Section B has short-answer questions of 2–3 marks each.
4. Section C has long-answer questions of 5 marks each.
5. Write balanced chemical equations wherever asked. Use of calculator is NOT permitted.

Section A — Objective (5 × 1 = 5)

5 MARKS · 10 MIN

- Q1.** Name the only metal that is in liquid state at room temperature. [PYQ 2019 Delhi] **[1 mark]**
- Q2.** Write the chemical formula of rust. [PYQ 2024 Delhi] **[1 mark]**
- Q3.** Name one non-metal that is a good conductor of electricity. [PYQ 2020 All India] **[1 mark]**
- Q4.** Which metal is stored under kerosene oil and why? [PYQ 2021 Delhi] **[1 mark]**
- Q5.** Give the composition of brass. [PYQ 2023 Delhi] **[1 mark]**

Section B — Short answer (5 × 2 = 10)

10 MARKS · 25 MIN

- Q6.** Write the balanced chemical equation for the reaction of iron with copper sulphate solution. State your observation. [PYQ 2021 Delhi] **[2 marks]**
- Q7.** Distinguish between ROASTING and CALCINATION, giving one example each. [PYQ 2020 All India] **[2 marks]**
- Q8.** State the two conditions necessary for the rusting of iron. Name any one method to prevent it. [PYQ 2019 Delhi] **[2 marks]**
- Q9.** Why do ionic compounds have HIGH melting and boiling points? [PYQ 2018 Delhi] **[2 marks]**
- Q10.** Write balanced chemical equations to show that Al_2O_3 is amphoteric. [PYQ 2024 All India] **[2 marks]**

Section C — Long answer (3 × 5 = 15)

15 MARKS · 55 MIN

- Q11.** (a) State the reactivity series of metals (any 8 metals in correct order). (b) Using the series, explain why (i) sodium is stored under kerosene, (ii) copper does not react with dilute HCl, (iii) iron displaces copper from copper sulphate. Support (iii) with a balanced equation. [PYQ 2023 Delhi] **[5 marks]**
- Q12.** (a) Define an ore. (b) Describe the extraction of zinc from zinc blende (ZnS) in three steps with balanced equations: concentration → conversion to oxide → reduction. (c) Name the method used to refine the impure zinc obtained. [PYQ 2022 Delhi] **[5 marks]**
- Q13.** (a) What is CORROSION? Name the type of corrosion of iron and write its chemical equation. (b) Describe three methods of preventing corrosion of iron, with the chemistry behind each. [PYQ 2024 Delhi] **[5 marks]**

Marking scheme & model answers — see companion Answer Key PDF · all PYQs traceable to actual CBSE papers ·
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