



परमाणु ऊर्जा शिक्षणसंस्था
Atomic Energy Education Society
कार्यपत्रक / Worksheet (2025-26)

कक्षा/Class: _____ शिष्य/Subject: _____ माह/ Month: _____ अंक/Marks:40

माह/ Month: _____-दिया गया पाठ्यक्रम/ Portion covered: **Metals And Non Metals Answer Key**

विद्यार्थी का नाम/Name of the student: _____

अनु क्रमांक /Roll No. _____ कक्षा/अनुभाग Class /Sec.: _____ दिनांक /Date: _____

ANSWER KEY

Section A: Multiple Choice Questions

1. c) Gold
2. c) Graphite
3. c) Potassium
4. c) Oxygen and water
5. c) Reaction with water
6. c) Carbon (e.g., graphite)
7. a) Aluminium
8. d) Bromine
9. b) Potassium
10. c) Silver

Section B: Assertion and Reason

11. b) Both A and R are true, but R is not the correct explanation of A
12. c) A is true, but R is false
13. a) Both A and R are true, and R is the correct explanation of A
14. b) Both A and R are true, but R is not the correct explanation of A

Section C: Very Short Answer

15. Metals are sonorous because they produce a ringing sound when struck.
16. Iron nails displace copper from copper sulphate solution, forming iron sulphate.
17. Sodium's softness and low melting point help identify it as a metal.
18. Magnesium ribbon is cleaned to remove oxide layer and ensure proper burning.
19. Carbon is not used to extract sodium because it's not reactive enough.

Section D: Short Answer

20. Magnesium reacts vigorously, iron reacts slowly, and copper doesn't react much.
21. Metals are good thermal and electrical conductors, e.g., copper and silver.
22. Malleability helps in construction by allowing metals to be shaped, e.g., Iron, Aluminium, etc..
23. Activity: Place iron nail in moist air; rusting occurs due to oxygen and moisture.

Section E: Case-Based Question

- 24 a) Magnesium oxide
- 24 b) Magnesium is a reactive metal and shows the property of reacting with oxygen to form a basic oxide.
- 24 c) $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$
- 24 d) The question's premise about litmus turning blue might be based on a different reaction or assumption; typically, MgO (magnesium oxide) is basic and could react with water to form $\text{Mg}(\text{OH})_2$, which would turn red litmus blue due to its basic nature.