



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

कक्षा /Class: VII विषय /Subject: Science माह/ Month: July अंक/Marks: 40

पढ़ाया गया पाठ्यक्रम/ Portion covered: Chapter 4 : The world of metals and non metals

विद्यार्थी का नाम/Name of the student: _____

अनुक्रमांक /Roll No. _____ कक्षा/अनुभाग Class /Sec: _____ तारीख/Date: _____

MULTIPLE CHOICE QUESTIONS (1 x 10 = 10 marks)

1. Which of the following metal can be cut with a knife?
a) Sulphur b) Pottassium c) Iron d) Oxygen
2. Which physical property is common in most metals?
a) They are soft and dull b) They are brittle c) They are good conductors of electricity
d) They are not shiny
3. Which of these is a non-metal?
a) Copper b) Aluminium c) Sulfur d) Silver
4. What happens when a metal reacts with oxygen?
a) It forms water b) It forms metal oxide c) It turns into gas d) It forms hydrogen
5. Which metal is used to make electrical wires?
a) Iron b) Mercury c) Copper d) Zinc
6. What is rust made of?
a) Iron and water b) Iron and salt c) Iron oxide d) Iron carbonate
7. Which of these is not a property of non-metals?
a) Poor conductor of heat b) Non- lustrous c) Malleable d) Brittle
8. Which metal is in liquid form at room temperature?
a) Iron b) Mercury c) Gold d) Aluminium

9. Which nature of metals enable to make wires out of it?
a) Sonority b) Ductility c) Malleability d) Lustre
10. Why is aluminium used to make foils and cans?
a) It is very heavy b) It is brittle c) It is soft and rusts easily d) It is malleable

ASSERTION AND REASON QUESTIONS

(1x 4 = 4 marks)

Select the correct options for the following questions;

- a. Both A and R are true, and R is the correct explanation of A.
- b. Both A and R are true, but R is not the correct explanation of A.
- c. A is true but R is false.
- d. A is false but R is true.

11. **Assertion (A):** Iron is used for making machines and tools.

Reason (R): Iron is soft and easily bent.

12. **Assertion (A):** A wooden spoon doesn't conduct heat.

Reason (R): Wooden spoon is a non metal

13. **Assertion (A):** Some metals are used in making stringed musical instruments.

Reason (R): Metals are not ductile.

14. **Assertion (A):** Metals are good conductors of electricity.

Reason (R): Metals allow electricity to pass through.

CASE BASED QUESTIONS

(1x4 = 4 MARKS)

Riya was working on a science project at home. She placed an iron nail, a piece of copper wire, and a strip of aluminum foil in three separate glasses of water and left them for a few days. After a week, she noticed something strange: the iron nail had developed a reddish-brown coating, but the copper and aluminum looked the same. Curious, she asked her teacher, who explained that iron reacts with water and oxygen in the air to form rust, a type of iron oxide. Copper and aluminum, however, do not rust like iron. In fact, aluminum forms a thin protective layer that prevents further corrosion. This made Riya realize how different metals can behave in different ways—and why choosing the right metal is important in everyday life.

Multiple Choice Questions:

14. What happened to the iron nail after a week in water?

- a) It melted
- b) It turned shiny
- c) It developed rust
- d) It broke into pieces

15. Why didn't the aluminum strip rust like the iron nail?

- a) Aluminum is a non-metal
- b) It evaporated before it could rust
- c) It formed a protective layer that stopped rusting
- d) It dissolved in water

16. What does the iron nail got rusted?

- a) with water only
- b) with air only
- c) with both air and water
- d) none of the abover

17. Which of the following is a property of metals like copper and aluminum?

- a) They always break in water
- b) They are gases
- c) They resist rust differently
- d) They are non-reactive solids

SHORT ANSWER TYPE QUESTIONS - I (2x 5 = 10 marks)

18. What happens when a metal reacts with oxygen?

19. Give one physical property each of a metal and a non-metal.

20. Why are metals used for making electrical wires?

21. What is meant by ductility?

22. Why is phosphorus stored under water?

SHORT ANSWER TYPE QUESTIONS - II (3x4 = 12 marks)

23. Differentiate between metals and non-metals based on three physical properties.

24. Explain the reaction of metals and non-metals with water.

25. Why is copper used to make utensils and electrical wires?

26. How do metals and non-metals react with acids? Give example.

