

Class – VII Subject : Science

Chapter 4 : The world of metals and non metals

Answer key

Multiple choice questions

1. b) pottassium
2. c) They are good conductors of electricity
3. c) sulfur
4. b) It forms metal oxide
5. c) Copper
6. c) Iron oxide
7. c) Malleable
8. b) Mercury
9. b) ductility
- 10.d) It is malleable

Assertion -Reason type question

- 11.c)
- 12.a)
- 13.c)
14. a)

Case based question:

14. a) It developed rust
15. c) It developed a protective layes that prevent rusting
- 16.c) With both air and water
17. c) They resist rust differently

Short answer type question-I

18. Metals react with oxygen to form metal oxides, which are usually basic in nature.

19. Metals are malleable (can be hammered into sheets), while non-metals are brittle (break on hammering).
20. Metals are good conductors of electricity and can be drawn into thin wires (ductile).
21. The property by which metals can be drawn into thin wires is called ductility
22. Phosphorus is highly reactive and catches fire on contact with air, so it is stored under water to prevent this.

Short answer type question -II

23. Metals are generally lustrous, malleable, and ductile.
Non-metals are non-lustrous (except iodine), brittle, and not ductile.
Also, metals are good conductors of heat and electricity, while non-metals are usually poor conductors
24. Some metals like sodium react vigorously with water to form metal hydroxide and hydrogen gas.
Magnesium reacts slowly, while gold and silver do not react with water.
Most non-metals do not react with water, and some like phosphorus react dangerously and hence are kept under water.
25. Copper is a good conductor of heat, so it is used to make utensils.
It is also an excellent conductor of electricity and is ductile, making it suitable for electrical wires.
Additionally, it does not react easily with air or water, so it lasts longer.
26. Metals like zinc and iron react with dilute acids to form hydrogen gas and a salt.
For example, zinc + hydrochloric acid \rightarrow zinc chloride + hydrogen.
Non-metals generally do not react with acids