

# Metals and Non-Metals

## ONE MARKS QUESTION

1. Which metal other than mercury is liquid at room temperature?
2. Why the item made of silver turns black when exposed to air?
3. Which non – metal is lustrous?
4. What is an amalgam?
5. What is the nature of oxides of metal?
6. Differentiate between the oxides of magnesium and sulphur.
7. Name one metal which is a poor conductor of heat

## TWO MARKS QUESTION

8. Give Reasons
  - a. Sodium and potassium are stored in kerosene
  - b. Ionic compounds have higher melting point
9. Differentiate between metals and non-metals based on
  - a. Malleability
  - b. Electrical conductivity
10. Give reasons for the following:
  - a. Na, K and Ca metals form hydrides by combination with hydrogen gas, but most other metals do not.
  - b. Metals conduct electricity.
11. Write the equations for the reactions of:
  - a. Iron with steam.
  - b. Calcium and potassium with water.
12. What is activity series? How does it help us in predicting the relative reactivities of various metals?
13. What is the difference between sodium atom and sodium ion.
14. What is anodizing? What is its use?

15. What is Aqua regia? What is its use?
16. Give reason: Aluminium is highly reactive metal, but it is used to make utensils for cooking.
17. Explain why (a) Iron articles are frequently painted. (b) Iron sheets are coated with Zinc layer.
18. What is amalgam?

### **THREE MARKS QUESTION**

19. Show the formation of magnesium chloride with the help of electron dot structure
20. What happens when :
  - a. Zinc reacts with copper Sulphate solution
  - b. Aluminum reacts with steam
  - c. Sodium reacts with water
  - d. Give balanced reactions for each.
21. Write electron dot structure for sodium and oxygen.
22. Show the formation of  $\text{Na}_2\text{O}$  by electron transfer. What are the ions present in these compounds?
23. Write three properties of ionic compounds.
24. Explain how a metal low in the activity series can be extracted. Write suitable example. Give reasons:

### **FIVE MARKS QUESTION**

25. Name the following:
  - I. A non – metal that is a good conductor of electricity.
  - II. A metallic oxide which cannot be reduced by coke.
  - III. A metallic oxide which is amphoteric in nature.
  - IV. A non – metallic oxide which is neutral.
26. With the help of labelled diagram explain how copper metal is purified after extraction
27. Explain How is zinc obtained from sulphide and carbonate ores? Differentiate between the two giving chemical reactions
28. What are the advantages of alloys? Name the constituents of bronze.
29. Write 5 points of difference between Ionic compound and covalent compound.