

**PON VIDYASHRAM GROUP OF CBSE SCHOOLS**

**METALS AND NON METALS-Chemistry**

**WORK SHEET X std**

1. What are amphoteric oxides? Choose the amphoteric oxide from the following .  
 $\text{Na}_2\text{O}$ ,  $\text{ZnO}$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{CO}_2$ ,  $\text{H}_2\text{O}$ .
2. Why do ionic compounds conduct electricity?
- 3 Why do covalent compounds have low melting point?
4. Name two metals which react violently with cold water. Write any three observation would make when such a metal is dropped into water. How would you identify the gas evolved, if any during the reaction?
5. Why non-metals do not displace  $\text{H}_2$  g from dilute acids?
6. Name a metal for each case
  - i) It does not reacts with cold as well as hot water but reacts with steam.
  - ii) It does not react with any physical state of water.
7. Why are alloys important in our daily life?
8. From amongst the metals sodium, calcium, aluminium, copper and magnesium name the metal
  - i) Which reacts with water only on boiling and
  - ii) Which does not react even with steam?
9. Write equation for the reaction of dilute sulphuric acid with sodium carbonate.
10. What happens when concentrated sulphuric acid is added to colourless cane sugar Crystals?
11. Give reasons:
  - a) Metals are regarded as electropositive elements .
  - b) Articles made of aluminium do not corrode even though aluminium is an active metal.

12. What do you mean by activity series of metals? Arrange the following metals in the decreasing order of their reactivity

Zn, Mg, Al, Cu and Fe

13. Differentiate between calcination and roasting.

14. What happens when Ca metal is treated with water? Explain with equation

15. A metal A, which is used in thermite process when heated with oxygen, gives an oxide B which is amphoteric in nature. Identify A and B. Write down the reaction of B with HCl, and NaOH.

16. A non-metal exists in two different allotropic forms Y and Z. Y is the hardest natural substance whereas Z is a good conductor of electricity. Identify X, Y and Z.

17. A non-metal A is an important constituent of our food and forms two oxides B and C. Oxide B is toxic in nature whereas C causes global warming. Identify A, B and C. To which group of the periodic table does it belong?

18. Give two examples each of the metals that are good conductors and poor conductors of heat respectively.

19. Give equation for the following reactions:

a)  $\text{ZnCO}_3$  is heated in the absence of oxygen

b) A mixture of  $\text{Cu}_2\text{O}$  and  $\text{Cu}_2\text{S}$  is heated

20. Explain Chlor-alkali process. Why is it important?