

CLASS X CHEMISTRY

FIRST TERM: ASSIGNMENT- 3 (2010)

METALS AND NON-METALS

1. List five physical properties of metals and compare them with non-metals.
2. Why is gold widely used for making jewellery?
3. Name one metal commonly used for making cooking utensils. Give reason also.
4. Give exceptions in the following cases-
 - a. All metals exist as solid at room temperature.
 - b. Non-metals are non-lustrous.
 - c. Non-metals do not conduct electricity.
 - d. Metals are hard.
 - e. Solid non-metals are brittle.
5. What is observed when-
 - a. Magnesium ribbon is burnt in a flame.
 - (b) Copper metal is heated in air.
6. Name two metal oxides that are soluble in water. (Write equation also)
7. With the help of equations, show that Al_2O_3 is an amphoteric oxide.
8. Write equations for the reactions of an acid with:
 - a. Zn metal.
 - (b) Na_2CO_3
 - (c) NaHCO_3
 - (d) NaOH solution.
9. Why is there no evolution of hydrogen when nitric oxide reacts with metals?
10. What is the reactivity series of metals?
11. What is an electrovalent bond? Show the formation OF NaCl, Na_2O , MgO and MgCl_2 with the help of electron-dot representation.
12. Why does a solution of sodium chloride conduct electricity which solid NaCl does not?
13. Write properties of ionic compounds.
14. Differentiate between a mineral and an ore.
15. Give reasons:
 - a. Gold and silver are found in their free state.
 - b. Sodium is never found in its free state.
 - c. The sulphide ore is converted into an oxide for the extraction of metals.
 - d. The oxides of metals like Hg can be reduced by heating only.
 - e. The oxides of metals like Na, Mg , Ca cannot be reduced by carbon
16. Name two metals that can be refined by electrolysis.
17. Name the cathode, anode and the electrolyte for refining of copper electrolytically.
18. Name the substance formed on the surface of iron, silver and copper due to corrosion.
19. How is steel different from stainless steel?
20. What is an alloy? Write the composition of brass, bronze and solder.