INTERNATIIONAL INDIAN SCHOOL, RIYADH
SAI WORKSHEET-2015-16
SUBJECT: CHEMISTRY STD: X

CHAPTER : METALS AND NON METALS:

1. Name any one metal which reacts neither with cold water nor with hot water but reacts with heated steam to produce hydrogen gas.
2. Name the metal which reacts with very dilute HNO_3 to evolve hydrogen gas.
3. What chemical process is used for obtaining a metal from its oxide.
4. A student has been collecting silver coins and copper coins. One day she observed a black coating on silver coins and green coating on copper coin. How are they formed.
5. Give reasons for the following.

   (a)Gold and silver are used for making jewellery.

   (b)Carbonate and sulphide ores are usually converted into oxides prior to reduction during the process of extraction.

   (c.)Hydrogen is not evolved when a metal reacts with nitric acid.

   (d) Aluminium oxide is considered as an amphoteric oxide.

   (e)Sodium, potassium are stored under kerosene oil.

6. Carbon cannot be used as reducing agent to obtain Mg from MgO. Why?

   How is sodium obtained from molten sodium chloride?. Give equation of the reactions. How is copper obtained from its sulphide ore? Give equations of the reactions.

7. (a) Show the formation of Na2O by the transfer of electrons between the combining atoms.
   (b) Why are ionic compounds usually hard.
   (c.) How is it that ionic compounds in the solid state do not conduct electricity but they do so when in molten state.

8. A solution of $CUSO_4$ was kept in an iron pot. After few days the iron pot was found to have a number of holes in it. Explain the reason in terms of reactivity. Write the equation of the reaction involved.

9. How is impure copper purified by electrolytic refining?. Draw a labeled diagram to illustrate it.

10. Compound 'X' and aluminium are used to join railway tracks.
    (a)Identify the compound X
    (b) Name of the reaction.
    (c) Write down its reaction

11. How is the method of extraction of metals high up in the reactivity different from that for metals in the middle?. Why the same process can not be applied for them?. Explain giving equations, the extraction of sodium.

12. Write balanced equations for the reaction of
    (1)Iron with steam
    (2)Calcium with water. Why does calcium start floating in water?
    (3) Potassium with water.

13. Name the main ore of mercury. How is mercury obtained from its ore. Gived balanced chemical equation.

14. In the formation of compound between two atoms A and B , A loses two electrons and B gains one electron.
    (1) What is the nature of bond between A and B
    (2) Suggest the formula of the compound between A and B

15. During extraction of metals, electrolytic refining is used to obtain pure metals.
    (1) Which material will be used as anode and cathode, for refining of silver metals?
    (2) Suggest a suitable electrolyte.
    (3) In this electrolytic cell, where do we get pure silver after passing electric current.

Prepared By:

Deepa Sajeev (IX-X Girls)