Chemistry - 12th Class Chemistry Chapter 3 Short Questions Preparation

Q1. What is asbestos?Give its two uses.

Ans 1: Asbestos is hydrated calcium magnesium silicate $CaMg_3(SiO_3)_4$.It commonly used in making incombustible fabrics and hardboards,etc.

Q2. Why Boric acid cannot be titrated by NaOH?

Ans 1: Boric acid is partially neutralized by caustic soda to give borax so,boric acid cannot be titrated by NaOH.
$4H_3BO_3 + 2HaOH \text{------} > Na_2B_4O_7 + 7H_2O$

Q3. White lead is not a good pigment.Give reason?

Ans 1: Basic lead carbonate $2PbCO_3.Pb(OH)_2$is an amorphous white pigment.White lead is not suitable for use as good pigment since it is darkened by the hydrogen sulphide which is frequently present in the atmosphere.

Q4. How lime and sand are used to make glass?

Ans 1: Water glass or soluble glass (Sodium Silicate) is prepared by fusing sodium carbonate(Lime) with pure sand (silica).This process is carried out in a furnace called reverberatory furnace.
$Na_2CO_3 + SiO_2 \text{------} > Na_2SiO_3 + CO_2$

Q5. Give reaction of Aluminium with dilute and concentrated H_2SO_4?

Ans 1: **Reaction with dilute H_2SO_4:**Aluminium does not react with dilute sulphuric acid.

Ans 2: **Reaction with Conc.H_2SO_4**: Al is oxidized by hot concentrated sulphuric acid to liberate sulphur dioxide gas.
$2Al_{(s)} + 6H_2SO_{4(aq)} \text{-----} > Al_2(SO_4)_{3(aq)} + 3H_{2(g)}$

Q6. Under what conditions aluminium corrode.

Ans 1: When aluminium sheet is exposed to moist air it acquires a thin,continuous coating of aluminium oxide,which is product of aluminium corrosion.

Q7. Boron differs from its family members,Discuss?

Ans 1:

1. Boron is only element in group IIIA which is non metallic in behaviour.
2. Its is the only element with less tha four electron in the outermost shell which is not a metal.
3. One of the outstanding feature of the chemistry of boron is its ability to form molecular addition compounds.

Q8. Give uses of Lead Suboxide?

Ans 1: It is back powder,obtained on heating plumbous oxalate in the absence of air.Other than pigments,it is used in the manufacture of lead storage batteries.

Q9. Give the formula and use of Talc soap stone?

Ans 1: **Formula of soap stone**: $Mg_3H_2(SiO_3)_4$

Ans 2: **Use of soap stone:**It is physically greasy to touch.Therefore it is used in making cosmetics.It is also used in making household articles.

Q10. Write the formula of Borax and Chile Saltpeter.

Ans 1: Borax: $Na_2B_4.10H_2O$
Chile Saltpeter : $NanO_3$
