INDIAN SCHOOL NIZWA - WORKSHEET

CHEMISTRY

CH: 10&11 S &P-BLOCK ELEMENTS

Name: _____ Date:_____ Class: XISec: A___

1. Why $BaSO_4$ is insoluble whereas $BeSO_4$ is soluble in water?

2. Halides of Be dissolves inorganic solvent while those of Ba do not. Why is it so?

3. Comment on each of the following observations

   a) The mobilities of alkali metal ions in aqueus solution are:$Li^+ < Na^+$, $K^+ < Rb^+$
   b) Li is the only alkali metals which form nitrite directly.
   c) LiF is least soluble among the fluorides of alkali metals.
   d) LiF is ore soluble than KF in ethanol.
   e) LiI s more soluble than KI in ethanol

4. Why K,Rb, Cs form superoxide in reference to peroxide ?

5. Account for the following

   i) Alkali metals show only +1 oxidation states
   ii) The hydroxides of alkali metals are strong bases
   iii) Na, K impart colour to the flame whereas Mg does not.
   iv) Li is the strongest reducing agent in aqueous solution

6. BCl_3 is trigonal planar while $AlCl_3$ is tetrahedral in dimeric state. Explain.

7. PbO_2 is a stronger oxidizing agent than SnO_2.Why?

8. Why $(SiH_3)_3 N$ is a weaker base than $(CH_3)_3N$?

9. Why carbon forms covalent compounds whereas Pb foms ionic compounds?

10. The tendency for catenation decreases down the group for group14 . Why?
11. Strength of bases increases from LiOH to CsOH. Justify.
12. Explain the structure of diborane.
13. Aluminium metal is frequently used as reducing agent for the extraction of metals like Cr, Mn,Fe. Why?
14. Element silicon does not form graphite like structure. Why?
15. Group 2 metals are harder and denser than group 1 metals. Why?