DPP
DAILY PRACTICE PROBLEMS

CLASS : XIth **SUBJECT : CHEMISTRY**
DATE : **DPP No. :1**

Topic :- THE S-BLOCK ELEMENTS

1. Which out of the following compounds is called photographer's fixer?
   a) Na_2SO_3 b) $Na_2S_2O_3 .5H_2O$ c) Na_2SO_4 d) Na_2S

2. BeF_2 is soluble in water whereas fluorides of other alkaline earth metals are insoluble because of:
   a) Ionic nature of BeF_2
   b) Covalent nature of BeF_2
   c) Greater hydration energy of Be^{2+} ion as compared to its lattice energy
   d) None of the above

3. Sodium thiosulphate, $Na_2S_2O_3.5H_2O$ is used in photography to:
   a) Reduce the silver bromide grains to metallic silver
   b) Convert the metallic silver to silver salt
   c) Remove undecomposed AgBr as soluble silver thiosulphate complex
   d) Remove reduced silver

4. Hypo is used in:
   a) Iodimetric titrations b) Iodometric titrations c) Photography d) All of these

5. Which of the following is an epsom salt?
   a) $2CaSO_4 . H_2O$ b) $MgSO_4 . 7H_2O$
   c) $MgSO_4 . 2H_2O$ d) $BaSO_4 . 2H_2O$

6. Magnesium form Mg^{2+} and not Mg^{+} because:
   a) Magnesium (II) carbonate is insoluble in water
   b) Generally higher oxidation states are preferred by metals
   c) Ionic radius of Mg(II) is smaller than of Mg (I)
   d) Hydration energy of divalent magnesium ion is higher

7. Which on mixing with water gives a hissing sound and becomes very hard?
   a) Slaked lime
   b) Quick lime
   c) Limestone
   d) Superphosphate of lime

8. Molecular formula of Glauber's salt is
   a) $MgSO_4 .7H_2O$ b) $CuSO_4 .5H_2O$ c) $FeSO_4 .7H_2O$ d) $Na_2SO_4 .10H_2O$

9. Dead burnt is:

a) $CaSO_4$ b) Na_2CO_3 c) Anhydrous Na_2SO_4 d) Anhydrous $CuSO_4$

10. Bleaching powder is obtained by interaction of Cl_2 and:
a) dil. $Ca(OH)_2(aq)$ b) dry CaO c) conc. $Ca(OH)_2(aq)$ d) Dry slaked lime

11. Baking soda is:
a) $NaHCO_3$ b) $NaHCO_3 \cdot 6H_2O$ c) Na_2CO_3 d) $Na_2CO_3 \cdot 10H_2O$

12. Which statement is false for alkali metals?
a) Lithium is the strongest reducing agent
b) Sodium is amphoteric in nature
c) Li^+ is exceptionally small
d) All alkali metals give blue solution in liquid ammonia

13. Most abundant salt of sodium in nature is:
a) $NaNO_3$ b) Na_2SO_4 c) NaOH d) NaCl

14. Which alkaline earth metal forms peroxide on burning in air?
a) Be b) Ca c) Sr d) Ba

15. In the manufacture of sodium hydroxide, byproduct obtained is:
a) O_2 b) Cl_2 c) Na_2CO_3 d) NaCl

16. Alkaline earth metal oxide having the co-ordination number four is:
a) BeO b) MgO c) SrO d) CaO

17. What are the products formed when an aqueous solution of magnesium bicarbonate is boiled?
a) MgO, H_2O, CO_2 b) $Mg(HCO_3)_2, H_2O$ c) $Mg(OH)_2, H_2O$ d) Mg, CO_2, H_2O

18. A metal M forms water soluble MSO_4 and inert MO. MO in aqueous solution forms insoluble $M(OH)_2$ soluble in NaOH. Metal M is
a) Be b) Mg c) Ca d) Si

19. Alkali metals are characterised by:
a) Good conductors of heat and electricity
b) High melting points
c) Low oxidation potentials
d) High ionisation potentials

20. Sodium thiosulphate is used in photography
a) As AgBr grain is reduced to non-metallic silver
b) To convert metallic silver into silver salt
c) To remove reduced silver
d) To remove undecomposed AgBr in the form of $Na_3[Ag(S_2O_3)_2]$ (a complex salt)