DPP
DAILY PRACTICE PROBLEMS

CLASS : XIth **SUBJECT : CHEMISTRY**
DATE : **DPP No. : 3**

Topic :- THE S-BLOCK ELEMENTS

1. The main constituent of bones is:
   a) $CaCO_3$ b) CaF_2 c) $CaSO_4$ d) $Ca_3(PO_4)_2$

2. Mortar is a mixture of:
   a) $CaCO_3$ and CaO
   b) Slaked lime and water
   c) Slaked lime, sand and water
   d) None of the above

3. Sodium cannot be extracted by the electrolysis of brine solution because:
   a) Sodium liberated reacts with water to produce $NaOH + H_2$
   b) Sodium being more electropositive than hydrogen, H_2 is liberated at cathode and not sodium
   c) Electrolysis cannot take place with brine solution
   d) None of the above

4. The function of sand in mortar is:
   a) To decrease the hardness
   b) To make the mass compact
   c) To decrease the plasticity of the mass
   d) To prevent the excess shrinkage because of which cracks may result

5. The most homogeneous family in periodic table is of:
   a) Alkali metals b) Alkaline earth metals c) Volatile metals d) Coinage metals

6. Pick out the statement (s) which is (are) not true about the diagonal relationship of Li and Mg.
   (i) Polarising powers of Li^+ and Mg^{2+} are almost same.
   (ii) L like Li, Mg decomposes water very fast.
   (iii) LiCl and $MgCl_2$ are deliquescent.
   (iv) Like Li, Mg does not form solid bicarbonates.
   a) (i) and (ii) b) (ii) and (iii) c) Only (ii) d) Only (i)

7. Which is most basic in character?
   a) NaOH b) KOH c) RbOH d) LiOH

8. On strong heating sodium bicarbonate changes into
   a) Sodium monoxide b) Sodium hydroxide c) Sodium carbonate d) Sodium peroxide

9. Fusion mixture is comprised of:
   a) $K_2CO_3 + Na_2CO_3$ b) $KHSO_4 + NaHSO_4$ c) $K_2CO_3 + NaHSO_4$ d) $KHSO_4 + Na_2SO_3$

10. Which of the following will liberate hydrogen by its reaction with hydrochloric acid?
    a) Copper b) Phosphorus c) Mercury d) Magnesium

11. Baking powder contains
    a) $NaHCO_3, Ca(H_2PO_2)_2$ and starch
    b) $NaHCO_3, Ca(H_2PO_2)_2$
    c) $NaHCO_3$, and starch
    d) $NaHCO_3$

12. In the hardening stage of plaster of Paris, the compound formed is
    a) $CaSO_4$
    b) Orthorhombic $CaSO_4 . 2H_2O$
    c) $CaSO_4 . H_2O$
    d) Monoclinic $CaSO_4 . 2H_2O$

13. Magnesium has polarising power closer to that of:
    a) Li b) Na c) K d) Cs

14. Calcium does not combine directly with:
    a) O_2 b) N_2 c) H_2 d) Carbon

15. A fire of lithium, sodium and potassium can be extinguished by
    a) H_2O b) Nitrogen c) CO_2 d) Asbestose blanket

16. Halides of alkaline earth metals form hydrates such as $MgCl_2 \cdot 6H_2O$, $CaCl_2 \cdot 6H_2O$, $BaCl_2 \cdot 2H_2O$ and $SrCl_2 \cdot 2H_2O$. This shows that halides of group 2 elements:
    a) Are hygroscopic in nature
    b) Act as dehydrating agent
    c) Can absorb moisture from air
    d) All of the above

17. The process associated with sodium carbonate manufacture is known as ....process.
    a) Chamber b) Haber c) Leblanc d) Castner

18. Thomas slag is
    a) $CaSiO_3$ b) $Ca_3(PO_4)_2$ c) $MnSiO_3$ d) $CaCO_3$

19. The formula of Norwegian saltpetre is:
    a) $NaNO_3$ b) KNO_3 c) $Ca(NO_3)_2 \cdot CaO$ d) $Ba(NO_3)_2$

20. Calcium is extracted by the electrolysis of:
    a) Fused mixture of $CaCl_2$ and CaF_2
    b) $CaCl_2$ solution
    c) Fused mixture of $CaCl_2$ and NaF
    d) $Ca_3(PO_4)_2$ solution