

Date Planned : / /	Daily Tutorial Sheet-11	Expected Duration : 90 Min
Actual Date of Attempt : / /	Numerical Value Type	Exact Duration :

- **126.** How many different combinations of water are possible from  ${}_{1}H^{1}$ ,  ${}_{1}H^{2}$ ,  ${}_{1}H^{3}$  and  ${}_{8}O^{16}$ ,  ${}_{8}O^{17}$ ,  ${}_{8}O^{16}$ .
- 127. What is the sum of protons, electrons and neutrons in the heaviest isotope of hydrogen?
- 128. A commercial sample of  $H_2O_2$  is labelled as '10 volume'. What is its strength? (Round your answer to the nearest integer)
- **129.** Mass of CaO will be required to remove the hardness of 1000 litres of water containing 1.62 g of calcium bicarbonate per litre is A. Find value of A.
- 130. On heating a mixture containing 1 mole each of  $Li_2CO_3$  and  $K_2CO_3$ , x mole of  $CO_2$  is/are formed. Find the value of x.
- **131.** The formula of plaster of paris and gypsum are  $x CaSO_4 \cdot H_2O$  and  $CaSO_4 \cdot \frac{y}{2} H_2O$  respectively. Find the value of x + y.
- **132.** In hydrolysis of potassium superoxide number of different oxidation states of oxygen in reactants and products are\_\_\_\_\_.
- 133. How many amongst the following carbides do not give methane on hydrolysis CaC2, Mg2C3, Be2C.
- **134.** The maximum covalency shown by Be is :
- **135.** What will be the atomic number of an element which belongs to period 8 and group 2.
- **136.** How many alkali metals form oxide under normal conditions.
- **137.**  $NH_3$ ,  $H_2O$ ,  $CH_4$ , HF,  $BH_3$ ,  $BeH_2$ ,  $SiH_4$ ,  $H_2S$ ,  $PH_3$  How many of the above compounds are electron precise.
- 138. In water each  $H_2O$  molecule is surrounded by y neighbouring  $H_2O$  molecules randomly by hydrogen bonding. Find the value of y.
- $\textbf{139.} \qquad \text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O} \xrightarrow{\phantom{-}375\text{K}\phantom{-}} \text{Na}_2\text{CO}_3 \cdot \text{X} \, \text{H}_2\text{O} + \text{Y} \, \text{H}_2\text{O}. \, \, \text{The value of} \, \, \text{Y} \text{X} \, \, \text{is} :$
- **140.** How many of the following orders are correct:
  - (i) LiOH > NaOH > KOH (Solubility in water)
  - (ii) LiHCO<sub>3</sub> < NaHCO<sub>3</sub> < KHCO<sub>3</sub> (Solubility in water)
  - (iii)  $\text{Li}_2\text{CO}_3 < \text{Na}_2\text{CO}_3 < \text{K}_2\text{CO}_3$  (Solubility in water)
  - (iv) LiCl > NaCl > KCl > RbCl (Lattice energy)