# DPP
**DAILY PRACTICE PROBLEMS**

**CLASS : XIth**                                           **SUBJECT : CHEMISTRY**
**DATE :**                                                 **DPP No.   : 7**

## Topic :- SOME BASIC CONCEPTS OF CHEMISTRY

1. One atom of an element weights $1.8 \times 10^{-22}$ g. its atomic mass is
   a) 29.9                 b) 18                 c) 108.36                 d) 154

2. How many moles of electrons weigh one kilogram?
   a) $6.023 \times 10^{23}$     b) $\dfrac{1}{9.108} \times 10^{31}$     c) $\dfrac{6.023}{9.108} \times 10^{54}$     d) $\dfrac{1}{9.108 \times 6.023} \times 10^{8}$

3. The number of moles of water in 488 g $BaCl_2 \cdot 2H_2O$ are:
   a) 2                 b) 3                 c) 4                 d) 5

4. The number of molecules in 16 g of methane is:
   a) $3.0 \times 10^{23}$     b) $6.02 \times 10^{23}$     c) $\dfrac{16}{6.02} \times 10^{23}$     d) $\dfrac{16}{3.0} \times 10^{23}$

5. The percentage of $P_2O_5$ in diammonium hydrogen phosphate, $(NH_4)_2HPO_4$ is
   a) 23.48                 b) 46.96                 c) 53.78                 d) 71.00

6. Acidified $KMnO_4$ oxidises oxalic acid to $CO_2$. What is the volume (in litres) of $10^{-4}$ M $KMnO_4$ required to completely oxidise 0.5 L of $10^{-2}$ M oxalic acid in acid medium?
   a) 125                 b) 1250                 c) 200                 d) 20

7. 0.003924 have . . . . . . . significant figures.
   a) 6                 b) 4                 c) 3                 d) 7

8. The formula mass of Mohr's salt is 392. The iron present in it is oxidised by $KMnO_4$ in acid medium. The equivalent mass of Mohr's salt is
   a) 392                 b) 31.6                 c) 278                 d) 156

9. Matter is anything which occupies . . . A . . . and has . . . B . . . .
   Here $A$ and $B$ are
   a) Density and mass     b) Volume and mass     c) Space and mass     d) None of these

10. Which is not a molecular formula?
    a) $C_6H_{12}O_6$          b) $Ca(NO_3)_2$          c) $C_2H_4O_2$          d) $N_2O$

11. Insulin contains 3.4% sulphur. What will be the minimum molecular weight of insulin?
    a) 94.117          b) 1884          c) 941.176          d) 976

12. Which of the following contains maximum number of molecules?
    a) 100 cc of $CO_2$ at STP  b) 150 cc of $N_2$ at STP    c) 50 cc of $SO_2$ at STP    d) 200 cc of $NH_3$ at STP

13. Weight of a single molecule of water is:
    a) $3.0 \times 10^{-23}$ g          b) $6.02 \times 10^{23}$ g          c) $6.02 \times 10^{-23}$ g          d) None of these

14. Air contains 20% $O_2$ by volume. How much volume of air will be required for 100 cc of acetylene?
    a) 500 cc          b) 1064 cc          c) 212.8 cc          d) 1250 cc

15. 1.35 g of pure Ca metal was quantitatively converted into 1.88 g of pure CaO, what is atomic weight of Ca?
    a) 40.75          b) 50          c) 60          d) 70

16. If 250 mL of a solution contains 2.7 g of $H_3PO_4$, the normality of the solution is:
    a) 4.0          b) 0.33          c) 0.4          d) 0.1

17. The weights of two elements which combine with one another are in the ratio of their:
    a) At. wt.          b) Mol. wt          c) Eq. wt.          d) None of these

18. One litre $N_2$, $\frac{7}{8}$ litre $O_2$ and 1 litre CO are taken in a mixture under indentical conditions of $P$ and $T$. The amount of gases present in mixture is given by:
    a) $w_{N_2} = w_{O_2} > w_{CO}$        b) $w_{N_2} = w_{CO} > w_{O_2}$        c) $w_{N_2} = w_{O_2} = w_{CO}$        d) $w_{CO} > w_{N_2} > w_{O_2}$

19. Volume of 0.1 $M$ NaOH needed for the neutralisation of 20 mL of 0.05 $M$ oxalic acid is:
    a) 10 mL          b) 15mL          c) 20 mL          d) 30 mL

20. The mole fraction of solute in one molal aqueous solution is:
    a) 0.009          b) 0.018          c) 0.027          d) 0.036