DPP

CLASS : XIth   SUBJECT : CHEMISTRY
DATE :   DPP No.   : 5

Topic :- SOME BASIC CONCEPTS OF CHEMISTRY

1. Which has the maximum number of atoms?
    a) 6 g C   b) 1 g H_2 c) 12 g Mg   d) 30 g Ca

2. Mixing up of equal volumes of 0.1 M NaOH and 0.1 M CH_3COOH yields a solution which is:
    a) Basic   b) Acidic   c) Neutral   d) None of these

3. If 6.3 g of $NaHCO_3$ are added to 15.0 g CH_3COOH solution, the residue is found to weight 18.0 g. what is the mass of CO_2 released in the reaction?
    a) 4.5 g   b) 3.3 g   c) 2.6 g   d) 2.8 g

4. 50 mL of an aqueous solution of glucose contains 6.02×10^{22} molecules. The concentration of solution is:
    a) 0.1 M b) 1.0 M c) 0.2 M d) 2.0 M

5. Molar concentration of a solution in water is:
    a) Always equal to normality of solution
    b) More than molality of the solution
    c) Equal to molality of the solution
    d) Less than the molality of the solution

6. 1 kg of NaOH solution contains 4 g of NaOH. The approximate concentration of the solution is:
    a) 1 molar   b) 0.1 molar   c) Decinormal   d) About 0.1 N

7. How many moles of lead (II) chloride will be formed from a reaction between 6.5 g of PbO and 3.2 g of HCl?
    a) 0.333   b) 0.011   c) 0.029   d) 0.044

8. The nature of mixture obtained mixing 50 mL of 0.1 M H_2SO_4 and 50 mL of 0.1 M NaOH is:
    a) Acidic   b) Basic   c) Neutral   d) amphoteric

9. Number of electrons in 1.8 mL of H_2O is :

a) 6.02×10^{23} b) 3.011×10^{23} c) 0.6022×10^{23} d) 60.22×10^{23}

10. If a compound contains two oxygen atoms, four carbon atoms and number of hydrogen atom is double of carbon atoms, the vapour density of it is:
    a) 88 b) 44 c) 132 d) 72

11. Molecular weight of oxalic acid is 126. The weight of oxalic acid required to neutralise 1000 mL of normal solution of NaOH is:
    a) 126 g b) 63 g c) 6.3 g d) 12.6 g

12. The number of hydrogen atoms present in 25.6 g of sucrose($C_{12}H_{22}O_{11}$) which has a molar mass of 342.3 g is
    a) 22×10^{23} b) 9.91×10^{23} c) 11×10^{23} d) 44×10^{23} H atoms

13. Molarity of liquid HCl with density equal to 1.17 g/mL is:
    a) 36.5 b) 18.25 c) 32.05 d) 4.65

14. If 20 mL of 0.4 N NaOH solution completely neutralizes 40 mL of a dibasic acid, the molarity of the acid solution is:
    a) 0.1 M b) 0.2 M c) 0.3 M d) 0.4 M

15. Dissolving 120 g of urea (mol.wt.60) in 1000 g of water gave a solution of density 1.15 g/mL. The molarity of the solution is:
    a) 1.78 M b) 2.00 M c) 2.05 M d) 2.22 M

16. Equivalent weight of NH_3 as a base is:
    a) 17 b) 17/3 c) 1.7 d) 17/2

17. $KMnO_4$ reacts with oxalic acid according to the equation
    $2MnO_4^- + 5C_2O_4^{2-} + 16H^+ \rightarrow 2Mn^{2+} + 10CO_2 + 8H_2O$ Here, 20 mL of 0.1 M $KMnO_4$ is equivalent to
    a) 20 mL of 0.5 M $H_2C_2O_4$ b) 50 mL of 0.1 M $H_2C_2O_4$
    c) 50 mL of 0.1 M $H_2C_2O_4$ d) 20 mL of 0.1 M $H_2C_2O_4$

18. To prepare a standard solution of a substance, we use:
    a) A pipette b) A burette c) Measuring flask d) Measuring cylinder

19. There are two isotopes of an element with atomic mass z. Heavier one has atomic mass $z + 2$ and lighter one has $z - 1$, the abundance of lighter one is
    a) 66.6% b) 69.7% c) 6.67% d) 33.3%

20. 3 g of an oxide of a metal is converted to chloride completely and it yielded 5 g of chloride. The equivalent weight of the metal is
    a) 33.25 b) 3.325 c) 12 d) 20