1. Phenolphthalein color in basic medium is a *

- (●) Pink
- ( ) Orange
- ( ) Yellow
- ( ) Colourless

2. Methyl orange is *

- (●) Pink in acidic medium, yellow in basic medium
- ( ) Yellow in acidic medium, pink in basic medium
- ( ) Colourless in acidic medium, pink in basic medium
- ( ) Pink in acidic medium, colourless in basic medium.

3. In determination of mixture of bases by titration method, the amount of Sodium Hydroxide is calculated as---. *

- ( ) N x Equivalent mass of Sodium Carbonate / 10
- ( ) N [OH and CO32- portion] x Equivalent mass of Sodium Hydroxide and Sodium carbonate / 10
- (●) N [OH portion] x Equivalent mass of Sodium Hydroxide / 10
- ( ) N [CO32- portion] x Equivalent mass of Sodium carbonate /10

4. When pH is below 8.5 the indicator ---- is colourless. *

- ( ) EBT
- ( ) Methyl orange
- (●) Phenolphthalein
- ( ) K2CrO4

5. Hardness of water is conventionally expressed in terms of equivalent amount of _____. *

- ○ H2CO3
- ○ MgCO3
- ◉ CaCO3
- ○ Na2CO3

6. Which of the following is not a unit of hardness? *

- ○ Parts per million
- ◉ Degree centigrade
- ○ Degree clarke
- ○ Degree French

7. Temporary hardness of water is caused due to the presence of dissolved *

- ○ calcium hydrogen carbonates only
- ○ magnesium hydrogen carbonates only
- ○ Sulphates and chlorides of calcium or magnesium
- ◉ calcium hydrogen carbonates and magnesium hydrogen carbonates

8. When sodium hydroxide is added to HCl, the H+ ions are replaced by *

- (●) slow moving Na+ ions
- ( ) fast moving Na+ ions
- ( ) slow moving OH- ions
- ( ) fast moving OH- ions

9. Which among the following reagents is NOT required in conductometric titration of strong acid Vs strong base *

- ( ) HCl
- ( ) NaOH
- ( ) distilled water
- (●) K2Cr2O7

10. In order to get accurate values in titration of HCL Vs NaOH, the NaOH is added in increments of *

- ( ) 2ml near and beyond the end point
- ( ) 1 ml near and beyond the end point
- (●) 0.2 ml near and beyond the end point
- ( ) 0.5ml near and beyond the end point

11. In the pilot titration of NaOH Vs HCl by condcutometry, the base is added in increments of *

- ○ 0.1ml
- ○ 0.2ml
- ◉ 1ml
- ○ 2ml

12. Which indicator is used in potentiometric titration? *

- ○ Methyl orange
- ○ Potassium Chromate
- ○ Eriochrome Black T (EBT)
- ◉ No indicator is used.

13. Estimation of Fe(II) ions by potentiometry is_____titration. *

- ◉ Redox
- ○ Acid-base
- ○ Precipitation
- ○ Complexometric

14. Which of the following chemical agent is added during the estimation of Fe(II) ions by potentiometry to avoid the hydrolysis reaction during the titration? *

- ○ FAS
- ○ Phenolphthalein
- ◉ dil. H2SO4
- ○ dil. HCl

15. In the experiment, “Estimation of Fe(II) ions by potentiometry”, K2Cr2O7 acts as ---. *

- ○ Reducing agent
- ◉ Oxidizing agent
- ○ Indicator
- ○ Catalyst

16. Which of the following represents the equivalence point in the graph of EMF vs volume of titrant? *

- ○ Point at the highest EMF
- ○ Point at the lowest EMF
- ◉ Point at the greatest magnitude of the slope of the curve
- ○ Point at the least magnitude of the slope of the curve

17. All of the following statements are correct regarding potentiometric titration except *

- ○ They are suitable for colored or turbid solutions
- ◉ The EMF of the cell is zero at the equivalence point
- ○ The results obtained are accurate
- ○ Acid base titration can also be carried out by potentiometry

18. What is the working principle of conductometry? *

- ○ measurement of potential.
- ◉ measurement of conductivity of solution.
- ○ measurement of emf
- ○ measurements of pH

19. Conductivity cell is made up of... *

- ○ Two silver rods
- ◉ Two parallel sheets of platinum
- ○ Glass membrane of Ag/AgCl
- ○ Sb-Sb2O3

20. In conductometric titration, after both the acids are consumed, there is a steep increase in conductivity due to... *

- ○ increase in total volume of solution
- ○ increase in temperature
- ◉ increase in OH- ions
- ○ increase in H+ ions

21. At the same concentration and temperature, dilute aqueous solution of strong acid will conduct electricity.... *

- ◉ better than dilute aqueous solution of weak acid
- ○ as much as dilute aqueous solution of weak acid
- ○ lower than the dilute aqueous solution of weak acid
- ○ two-fold higher than the weak acid

22. Which of the following is the formula for pH calculation? *

- ○ log10[H+]
- ◉ -log10[H+]
- ○ log2[H+]
- ○ -log2[H+]

23. A buffer solution is used with pH measuring instruments to *

- ○ protect the equipment
- ◉ standardize the equipment
- ○ clean the electrodes
- ○ plantinize the reference electrode

24. The Staudinger – Mark-Houwink equation is *

- ◉ η i =K (M)a
- ○ I = η /p
- ○ E = mc2
- ○ E = η u

25. Which type of reaction occurs in the following reaction AgNO3 + NaCl → AgCl + NaNO3? *

- ○ Displacement reaction
- ○ Single replacement
- ○ Decomposition
- ◉ Double displacement reaction

Submit