

Class: T.Y.B. Sc (Chemistry)

Subject Name: Analytical Chemistry (Paper IV)

Semester: VI

Course Code: USCH604

Sample MCQ Questions

1. To estimate a series of a metal ion in a solution, the difference between their half-wave potential must be _____
 - a) 0.1 V
 - b) 0.2 V**
 - c) 2 V
 - d) 1 V
2. A graph of _____ versus the applied potential gives curve called Polarogram.
 - a) Volume
 - b) Resistance
 - c) Emf
 - d) Current**
3. In polarography, quantitative estimation is possible with concentration as low as _____
 - a) 10^{-9} M
 - b) 0.01 M
 - c) 10^{-6} M**
 - d) 10^{-3} M
4. In polarography, KCl is used to _____ migration of current.
 - a) Decrease
 - b) Eliminate**
 - c) Substitute
 - d) Increase
5. In amperometric titration, the cathode is _____.
 - a) DME**
 - b) SCE
 - c) Pt – wire
 - d) Zn-wire
6. In gas chromatography, SE-30 Silicon gum rubber is used as _____.
 - a) Mobile phase**
 - b) Solid support
 - c) Stationary phase

- d) Liquid support
7. Affinity of an anion towards an exchanger decreases with increase in size of ____.
- a) Flow time
 - b) Dead time**
 - c) Detection time
 - d) End time
8. Ion exchange capacity of resin is expressed in terms of _____.
- a) Millimoles
 - b) Milligrams
 - c) Milliequivalent**
 - d) Grams
9. Increase in tendency of an ion to form complex _____ the tendency to get exchanged.
- a) Enhance
 - b) Increases
 - c) Decreases**
 - d) Same
10. _____ is an example of natural ion-exchanger.
- a) Amines
 - b) Diamond
 - c) Clay**
 - d) Salt
11. Sulphur dioxide is used as a preservative for _____.
- a) Meat
 - b) Fruits
 - c) Only Vegetables
 - d) Both fruits & vegetables**
12. Chemically talc is _____.
- a) Magnesium silicate**
 - b) Potassium bromide
 - c) Sodium sulphate
 - d) Hypo-chloride
13. Fermentation changes the _____ of food.
- a) Colour
 - b) Taste
 - c) pH**
 - d) Cost
15. Vinegar contains approximately _____ % acetic acid.

- a) 33%
- b) 15%
- c) **4%**
- d) 30%

16. In DTA, _____ is mostly used as reference material.

- a) *MgO*
- b) **SiC**
- c) *Ca(OH)₂*
- d) *SiO₂*

17. In DTG, the _____ derivative of TGA is plotted versus temperature.

- a) **First**
- b) Second
- c) Partial
- d) Zero

18. Generally thermometric titrations are carried out in Dewar flask under _____ conditions.

- a) Isothermal
- b) **Adiabatic**
- c) Constant volume
- d) Isobaric

19. The differential thermogram for the dehydration shows _____ peaks.

- a) Endothermic
- b) Multiple
- c) **Exothermic**
- d) Downward

20. Calcium oxalate loses water of crystallization at _____ degree centigrade.

- a) 420°C
- b) 220°C
- c) **100°C**
- d) 320°C