

Q. Select the most correct alternative among those given below and rewrite the sentence

- DMG is specific reagent for——
  - Al
  - Ni
  - Fe
  - Mg
- The process of formation of nuclei is known as ——
  - precipitation
  - coagulation
  - nucleation
  - solidification
- Particle size of the crystalline precipitate is ——
  - 0.1 to 1.0 micron
  - less than 0.02 micron
  - 0.02 to 0.1 micron
  - greater than 1micron
- 8-hydroxy quinoline is used to precipitate ——
  - Al
  - Ni
  - Ca
  - Pt
- The process of formation of precipitate is known as ——
  - coagulation
  - precipitation
  - peptization
  - flocculation
- reduces co-precipitation, gives large particle size and easy filtration.
  - ignition
  - nucleation
  - digestion
  - coagulation
- Increase in temperature decreases extent of ——
  - post precipitation
  - precipitation
  - peptization
  - co precipitation
- Generally solubility increases as temperature ——
  - decreases
  - remain constant
  - increases
  - neither decreases nor increases
- Which of the following is not an advantage of Laminar flow burner used in Flamephotometry?



- B.P.C-III
- a) Noiseless  
 c) Efficient atomization of sample
- b) Stable flame formation  
 d) Sample containing two or more solvents can be burned efficiently
10. Laminar flow burner used in Flame photometers is also known as -----  
 a) Turbulent burner      b) Premix burner  
 c) Total consumption burner      d) Nozzle mix burner
11. ----- is not used as a fuel in flame photometry.  
 a) Acetylene    b) Propane  
 c) Hydrogen    d) Camphor oil
12. In simple flame photometer, the monochromator is -----  
 a) prism  
 c) slit
- b) grating  
 d) photoelectric cell
13. In Flame emission photometers, the measurement of ----- is used for quantitative analysis.  
 a) colour  
 c) velocity
- b) intensity  
 d) frequency
14. Flame photometry is also named as ----- spectroscopy.  
 a) flame emission  
 c) flame atomic
- b) molecular  
 d) absorption
15. Two main forms of chemical interference are stable compound formation and ---  
 a) precipitation  
 c) destruction
- b) ionisation  
 d) none of these
16. Flame photometry cannot be used for the direct detection and determination of ----- metals.  
 a) alkali  
 c) non
- b) noble  
 d) all of these
17. Which of the following detectors does not require a battery and is also known as barrier layer cell?  
 a) photorelector  
 c) Photovoltaic cell
- b) Photoemissive tubes  
 d) Photomultiplier tube
18. A plot of galvanometer readings against concentration of the solution is called as -----curve.  
 a) calibration  
 c) bigger
- b) standard  
 d) isotherm
19. If ultraviolet light is used in the colorimetric measurements, the vessels or optical parts of the system must be made up of -----  
 a) glass  
 c) coming glass
- b) borosil glass  
 d) quartz
20. What does a monochromator do in a spectrophotometer?  
 a) It emits light.  
 b) It is the first type of material measured using a spectrophotometer.  
 c) It breaks up the wavelengths in the light into individual wavelengths.



- d) It breaks a material down into individual atoms.
21. The best filter is that which gives ----- absorption for a given concentration of the absorbing substance.
- a) minimum                                      b) maximum  
c) zero     d) none of these
22. In which of the following ways, absorbance is related to transmittance?
- a) absorbance is the reciprocal of transmittance  
b) absorbance is the negative logarithm of transmittance  
c) absorbance is the logarithm of transmittance  
d) absorbance is a multiple of transmittance
23. Which of the following statements is false about single beam spectrophotometer?
- a) Tungsten bulb is used as a source  
b) Filter is used to obtain light within narrow range of wavelength  
c) Test tube is used as sample holder  
d) Photovoltaic cell as detector
23. A device used for measuring response of photocell is -----
- a) voltmeter                                      b) galvanometer  
c) conductometer                                d) all of these
24. Beer's law is valid when-----
- a) white light is used                              b) temperature is kept constant  
c) large amount of electrolyte is present    d) coloured solute forms complexes
- 26) The stationary phase used in adsorption chromatography is -----
- a) solid matrix                                      b) liquid adsorbent  
c) solid adsorbed                                    d) All of these
- 27) In column chromatography the alumina used act as .....
- a) Organic phase                                    b) Adsorbent  
c) Aqueous phase                                    d) Porous material
- 28) The chromatography technique used to separate charged species is -----
- a) ion exchange chromatography    b) adsorption chromatography  
c) partition chromatography                  d) exclusion chromatography
- 29) The rate of migration of band increases with-----
- a) increasing desorption                        b) increasing adsorption  
b) decreasing desorption                        d) all of these
- 30) The electrostatic forces operate in chromatography type -----



- a) adsorption  
 c) permeation
- 31) Insoluble ion exchangers are ----  
 a) porous  
 c) carry exchangeable ions
- 32) The stationary and mobile phases used in TLC are ----  
 a) liquid-gas  
 c) liquid-liquid
- 33) Anion-exchange chromatography is used to measure the concentration of ----  
 a) cations  
 c) eluent
- 34) The electrolyte solution within the glass electrode is ----  
 a) dilute HCl  
 c) dilute NaCl
- 35) Mercury covered by a layer of mercurous chloride in contact with saturated potassium chloride solution is known as ----- electrodes  
 a) sodium  
 c) calcium
- 36) In case of quinhydrone electrode redox reaction is ----  
 a) oxidation of quinone to hydroquinone  
 c) reduction of hydroquinone to quinone
- 37) In potentiometric titration, ----- is considered as the standard electrode.  
 a) Calomel electrode  
 c) Hydrogen electrode
- 38) In potentiometric titration, at end point slope of the curve is ----  
 a) minimum  
 c) unity
- 39) ----- electrode is not used as indicator electrode in determination of pH of the solution.  
 a) glass electrode  
 c) zinc electrode
- 40) In potentiometric acid- base titration, emf of the cell ----- with the addition of base.  
 a) remains constant  
 c) increases
- 41) In potentiometric titration, second derivative at end point is ----  
 a) maximum  
 c) zero
- 42) For standardisation of a potentiometer, a standard cell having voltage ----- is generally used.  
 a) 1 V  
 c) 1.018 V
- b) ion exchange  
 d) affinity
- b) micro beaded  
 d) all of these
- b) liquid-solid  
 d) all of these
- b) anions  
 d) all of these
- b) saturated KCl  
 d) dilute KCl
- b) calomel  
 d) silver/silver chloride
- b) reduction of quinone to hydroquinone  
 d) all of these
- b) Calcium electrode  
 d) Copper electrode
- b) maximum  
 d) zero
- b) quinhydrone electrode  
 d) hydrogen electrode
- b) becomes zero  
 d) decreases
- b) minimum  
 d) unity
- b) 1.1 V  
 d) 1.218 V