

SR. NO.	Analytical Sem 6, practice MCQ's
1	<p>In polarography _____ is used as non polarisable electrode</p> <p>glass electrode hydrogen electrode fluoride ion electrode standard calomel electrode</p>
2	<p>A _____ is the electrode whose potential is known and remains constant</p> <p>reference electrode indicator electrode pH electrode Graphite electrode</p>
3	<p>Half wave potential is dependent of _____</p> <p>Concentration of electro active species nature of supporting electrolyte Dissolved oxygen Nature of electro active species</p>
4	<p>Supporting electrolyte is used in Polarography to suppress _____</p> <p>Diffusion current Migration current convection current limiting current</p>
5	<p>Auxiliary electrode in Polarography is _____</p> <p>Dropping mercury Mercury pool Graphite electrode Rotating platinum electrode</p>

6	<p>Voltammetry is based on the measurement of _____ as function of applied potential</p> <p>conductance pH current concentration</p>
7	<p>Difference between the observed decomposition potential and theoretical potential is called _____</p> <p>EMF Deposition potential Over voltage Migration potential</p>
8	<p>Equation of the polarographic wave derived by applying _____</p> <p>Beer-Lambert's law Nernst equation Ilkovic equation Planck's equation</p>
9	<p>The diffusion current of Ba^{2+} ion in a unknown solution found to be $18.0 \mu\text{A}$. When 0.5 cm^3 of a $1.0 \times 10^{-3} \text{ M dm}^{-3}$ solution of Ba^{+2} ions is added to 15 cm^3 of the unknown solution the diffusion current increased to $39.5 \mu\text{A}$. Calculate the concentration of the unknown solution</p> <p>$3.692 \times 10^{-5} \text{ mol dm}^{-3}$ $2.692 \times 10^{-5} \text{ mol dm}^{-3}$ $1.692 \times 10^{-5} \text{ mol dm}^{-3}$ $2.692 \times 10^{-5} \text{ mol dm}^{-3}$</p>
10	<p>A supporting electrolyte other than KCl used in polarography is _____</p> <p>EDTA NaCl 4° Ammonium salts copper salts</p>
50	<p>The concentration range for amperometric titration is _____, hence used to detect trace elements</p> <p>10^{-6} to 10^{-1} M 10^{-8} to 10^{-1} M 10^{-2} to 10^{-1} M 10^{-10} to 10^{-1} M</p>

11	<p>_____ electrode is used as micro detector in liquid chromatography</p> <p>DME SCE Rotating Platinum electrode Hydrogen electrode</p>
12	<p>Several non-reducible substances like Mg^{2+}, PO_4^{3-}, SO_4 can be estimated by _____ titrations</p> <p>Acid –Base titration Photometric Titration Amperometric titration Thermometric titrations</p>
13	<p>Larger the number of theoretical plates, more _____ is the column.</p> <p>efficient heavier Costly Popular</p>
14	<p>For an efficient separation, the value of HETP must be _____.</p> <p>infinite Large variable Small</p>
15	<p>In GC, the maximum operation temperature attained is about _____ °C</p> <p>300 500 1000 1500</p>
16	<p>Resolution can be improved by _____.</p> <p>Using crude packing. Increasing the plate height decreasing column length changing the column temperature</p>

17	<p>The ratio of the _____ of the two solutes is called selectivity factor.</p> <p>partition coefficients resolution HETP Retention volumes</p>
18	<p>In GLC, _____ is used as stationary phase for polar compounds</p> <p>Squalene polyethylene glycol Zeolite paraffin oil</p>
19	<p>The efficiency of ion-exchange technique depends on the _____.</p> <p>Separation factor absorptivity Partition coefficient Retardation factor</p>
20	<p>_____ is a straight chain polymeric resin matrix</p> <p>polystyrene polyethersulphone polydivinylstyrene Zeolite-silicone membrane</p>
21	<p>Ion exchange refers to the reversible exchange of _____ ions.</p> <p>Opposite charged similar charged Complexed none of these</p>
22	<p>In IEC, a high value of selectivity coefficient indicates _____ affinity of the ions for the resin.</p> <p>Lesser greater moderate weak</p>

23	<p>The suitable pH for exchange on a secondary amine exchanger will be _____.</p> <p>5 7 9 12</p>
24	<p>_____ gets separated on an anion exchanger by forming a negatively charged complex in hydrochloric acid.</p> <p>Mg^{2+} Ni^{2+} Zn^{2+} Na^{2+}</p>
25	<p>Food preservation increases the ----- of food</p> <p>Shelf life Spoilage Quantity pH</p>
26	<p>----- used to enhance crispiness of food</p> <p>NaCl Boric acid Sorbic acid Epoxides</p>
27	<p>Fermentation does not change the -----of milk</p> <p>flavour pH Taste Colour</p>
28	<p>Lowenthal's method is used for the analysis of-----</p> <p>Tannin Lactose Caffeine Glucose</p>

29	<p>Cosmetic means any article intended to be used by means of-----for promoting attractiveness and altering the appearance of the human body</p> <p>Rubbing Sprinkling Beautifying All of these above</p>
30	<p>Cosmetics are used for maintaining health of the-----</p> <p>Skin and Hair Hand Knee pain Backache</p>
31	<p>Absorption and distribution of perfumes in face powder is achieved by-----</p> <p>Magnesium Carbonate Magnesium chloride Sodium chloride Potassium sulphate</p>
32	<p>During the examination of Ash for Borates, the ash is mixed with-----</p> <p>Hydrochloric acid Sulphuric acid Nitric acid Phosphoric acid</p>
33	<p>Deodorant lotions give very good cooling sensation due to presence of large amounts of-----</p> <p>Ethyl alcohol Sulphuric acid Nitric acid Phosphoric acid</p>
34	<p>-----metal is estimated from deodorants and antiperspirants</p> <p>Zn Na Ni Co</p>

35	<p>Mild antiseptic property of raw honey is due to-----</p> <p>Sugar Carbohydrate Glucose oxidase Water</p>
36	<p>----- is major constituents of deodorants</p> <p>HF NaCl Absolute ethanol KCl</p>
37	<p>----- is used in aerosol deodorants to hold ingredients together</p> <p>MgO TiO₂ Silicone base Methyl orange</p>
38	<p>Thermal methods of analysis involve measuring changes in properties of substance as the.....</p> <p>Function of Pressure Function of Temperature Function of Volume Function of time</p>
39	<p>The furnace used in Thermogravimetry should be able to heat the sample minimum up to.....</p> <p>800 K 1000 K 1500 K 1800 K</p>
40	<p>Anhydrous copper sulphate is formed around temperature</p> <p>363 K 473 K 973 K 1273 K</p>

41	<p>.....thermal method is used to study difference in temperature of reference and sample, measured as function of same applied temperature</p> <p>TGA DSC DTA TT</p>
42	<p>Which of the following is not the component of thermogravimetric instrument?</p> <p>Furnace Balance Motor Stirrer Sample holder</p>
43	<p>The Geometry of crucible used in thermogravimetry can alter the shape of thermogram because.....</p> <p>It can interrupt the ease of diffusion of gases generated. It will alter the furnace atmosphere It can affect the particle size distribution of sample. It can cause exchange of heat.</p>
44	<p>Which of the following statement is false for DTA technique</p> <p>Particle size of sample and reference are similar Kanthal wire is used in Furnace with temperature programmer Ambient cooling facility is part of the instrumentation. Sample undergoing physical changes cannot be analysed</p>
45	<p>The DTA curve for crystalline polymer, shows a transition at about</p> <p>150 °C 200 °C 320 °C 480 °C</p>
46	<p>Nichrome wire winding and platinum wire winding are used as.....in thermal methods instruments</p> <p>Temperature sensor Atmosphere controller Cooling system Electric heating element</p>

47	<p>Regression Coefficient should be greater than..... and to consider data as linear</p> <p>0.998 10.0 1.0 9.99</p>
48	<p>..... of method can be studied by the Recovery test.</p> <p>Accuracy Ruggedness Sensitivity Linear range</p>
49	<p>Which of the following statement is false?</p> <p>Method validation is done to evaluate its intended use. Method validation is done to fulfill the requirement of customer. Method validation is done to identify its accuracy and precision level Method validation is done, so that method can be marketed at a profitable value.</p>
50	<p>Ceramic industries uses.....thermal method to study decomposition.</p> <p>TT DTA DSC TGA</p>
