

1	Which methods are particularly useful for analyzing complex samples in which the likelihood of matrix effects is substantial?	
	a	Calibration
	b	Standard addition
	c	Standard deduction
	d	Normalization
2	When an external standard is used, it is assumed that the response received for an analyte will be	
	a	Negative
	b	Same
	c	Positive
	d	Different
3	Application of the principle for the determination of specific analyte from specific matrix is called	
	a	Procedure
	b	Method
	c	Technique
	d	Protocol
4	Measure of how closely the result of an experiment agrees with the expected result is called	
	a	Accuracy
	b	Precision
	c	Repeatability
	d	Error
5	Success or failure of an analysis is dependent on ----- of method.	
	a	Execution
	b	Selection
	c	Accuracy
	d	Availability
	Ans: Difficulty Level: S	
6	A systematic evaluation of system by internal or external team is known as	
	a	Quality Management
	b	Quality Control
	c	Quality Assurance
	d	Quality Audit
7	----- is method of assessing the reliability of toxicological studies for regulatory purposes.	
	a	Spectroscopy
	b	Klimisch Score
	c	21 CFR
	d	OSHA
8	How many Na^+ ions are present in 5.43 gm of Na_3PO_4 ? (Mol. Wt. of $\text{Na}_3\text{PO}_4 = 163.94$) Avogadro's No. = 6.022×10^{23}	
	a	5.98

	b	5.98×10^{22}	Ans:	Difficulty Level: M
	c	598×10^{22}		
	d	0.0598×10^{22}		
9	Find out the molar concentration of 67.5 ppm AgNO_3 solution. (Mol. Wt. of $\text{AgNO}_3 = 169.87$)			Difficulty Level: M
	a	3.97×10^{-4}		
	b	1.986×10^{-4}		
	c	0.397		
	d	0.198		
10	500 millimoles of MgO are present in ----gm of the powder. (Mol. Wt. of $\text{MgO} = 40.3$)			Difficulty Level: M
	a	2015		
	b	2.015		
	c	20.15		
	d	0.2015		
11	How many milligrams of salt are present in 3.5 liters of 685 ppm $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$? (Mol. Wt. = 249.68)			Difficulty Level: S
	a	2397.5		
	b	2.3975		
	c	23.975		
	d	239.75		
12	What is pH of 0.6 M HCl ?			Difficulty Level: S
	A	0.6		
	b	0.2218		
	c	-0.2218		
	d	-0.6		
13	The equilibrium constant for the dissolution of a solid into an aqueous solution is called as			Difficulty Level: M
	a	Equilibrium Constant		
	b	Dissolution Constant		
	c	Solubility Product		
	d	Dissociation Constant		
14	In most of charge transfer complexes involving a metal ion, the metal serves as_____.			
	a	Electron donor		
	b	Electron acceptor		
	c	Electron absorber		
	d	Proton acceptor		

15	Hydrogen bonding shifts the UV absorption to _____.	
	a	Shorter wavelengths
	b	longer wavelengths
	c	higher intensities
	d	lower intensities
16	Triglycerine sulphate is used as a _____ detector.	
	a	Thermal
	b	Pyroelectric
	c	Photovoltaic
	d	Semiconductor
17	_____ is an important component in a Fourier transform system.	
	a	Photocell
	b	beam splitter
	c	IR source
	d	Grating
	Ans:	Difficulty Level:
18	A first order derivative spectra passes through zero at the _____ wavelength as λ_{max} of the absorbance band.	
	a	Same
	b	Different
	c	Longer
	d	Shorter
19	Optical fibers typically include a core surrounded by a transparent material with lower index of refraction.	
	a	Glassy
	b	Cladding
	c	Capping
	d	Crystalline
20	In DTA, a graph of _____ vs. temperature is plotted.	
	a	Mass
	b	ΔT
	c	ΔH
	d	ΔM
21	_____ is not used as a reference material in DTA.	
	a	Alumina
	b	Carborundum
	c	Magnesium oxide
	d	Calcium carbonate
22	Which of these metallic materials is not used for fabrication of sample holder in DTA?	
	a	Nickel
	b	Stainless steel
	c	Iron
	d	Platinum

23	Applications of DTA compared to DSC are _____.	
	a	Almost same
	b	Completely different
	c	More diverse
	d	More specialized
24	_____ includes a peristaltic pump to propel the sample and reagents.	
	a	Power compensation DSC
	b	FIA
	c	DTG
	d	Heat flux DSC
25	_____ systems enable you to precisely control reaction conditions, reducing the risk of human error and giving you greater confidence in your results.	
	a	Power
	b	Computer
	c	Automated
	d	Manual