

Id	1
Question	What quantities of 95% v/v and 45% v/v alcohols are to be mixed to make 800 mL of 65% v/v alcohol?
A	480 mL of 95% and 320 mL of 45% alcohol
B	320 mL of 95% and 480 mL of 45% alcohol
C	440 mL of 95% and 360 mL of 45% alcohol
D	360 mL of 95% and 440 mL of 45% alcohol
Answer	B

Id	2
Question	A shape factor ratio α_s/α_v is 6 for a spherical particle. For an asymmetric particle the ratio will be -----
A	Equal to 6
B	More than 6
C	Less than 6
D	18
Answer	B

Id	3
Question	Which of the following can be used for measuring the viscosity of Newtonian fluid?
A	Cup & Bob viscometer
B	Anderson Pipette
C	Concentric cylinder
D	None of these
Answer	D

Id	4
Question	The Carr's index for good flow property is
A	5–15
B	12–16
C	18–21
D	28–35
Answer	B

Id	5
Question	Modified distribution law for the solute undergoing dissociation in one of the solvent is
A	$K_D = \frac{C_1}{\sqrt{C_2}}$
B	$K_D = \frac{C_1}{C_2(1-\alpha)}$
C	$K_D = \frac{C_1}{C_2(\alpha-1)}$
D	$K_D = \frac{C_1}{C_2}$
Answer	B

Id	6
Question	The loading dose of a drug is usually based on
A	Total body clearance of the drug
B	Percentage of the drug bound to plasma proteins
C	Fraction of drug excreted unchanged in urine
D	Apparent volume of distribution and described drug concentration in plasma
Answer	D

Id	7
Question	Chewable tablet contains the following base
A	Mannitol
B	Glucose
C	Lactose
D	None of these
Answer	A

Id	8
Question	HLB system developed by -----
A	Griffin
B	Stocks
C	Noye- Whitney's
D	None of these
Answer	A

Id	9
Question	Shellac is used for coating tablets as
A	Polishing agent
B	Film coating agent
C	Enteric coating agent
D	Sub-coating agent for sugarcoating
Answer	C

Id	10
Question	Entropy is a measure of ----- of the molecules of the system.
A	Concentration
B	Velocity
C	Zig -Zag Motion
D	Randomness or Disorder
Answer	D

Id	11
Question	Choose the correct excipient for enhancing solubility in tablet manufacture.
A	PEG
B	Microcrystalline cellulose
C	Talc
D	Lactose
Answer	B

Id	12
Question	What is the Z-value? If decimal reduction time is reduced by 1 decimal point after increasing temperature of sterilization process by $15^{\circ}C$
A	15
B	150
C	1.5
D	0.15
Answer	A

Id	13
Question	Anaerobic bacterium can be grown ideally by ----- method of cultivation.
A	Candle jar
B	Wright's tube
C	Macintosh and fields jar
D	All of these
Answer	D

Id	14
Question	During compression entrapped air might lead to -----.
A	Capping and lamination
B	Picking and sticking
C	Mottling
D	All of these
Answer	A

Id	15
Question	If the generation time of an organism in culture is 30 min and there are 500 cells in the log phase culture at 2.00 pm. How many cells will be there in the culture at 3.30 pm?
A	1000
B	1500
C	2000
D	4000
Answer	D

Id	16
Question	The colligative properties of a solution are related to -----
A	pH of the solution
B	Concentration of solute particles
C	pKa
D	Ions present in the solution
Answer	B

Id	17
Question	Thixotropic type of behavior is shown by the gel
A	Bentonite
B	Pectin
C	Silica
D	Starch
Answer	A

Id	18
Question	The following characteristics are true about Rickettsia except -----
A	Gram negative
B	Pleomorphic
C	Named after Howard Taylor Ricketts
D	Capable of growth in non-living media
Answer	D

Id	19
Question	Ethylene oxide is used as chemical sterilizer for -----
A	Urological products
B	Medical devices
C	Surgical dressings
D	All of these
Answer	D

Id	20
Question	Measuring zeta potential is useful in determining which property of liquid formulation
A	Viscosity
B	Solubility
C	Stability
D	Spreading
Answer	C

Id	21
Question	Which of the following drugs is used for acute toxic effect of organophosphate cholinesterase inhibitors?
A	Atropine
B	Pilocarpine
C	Pralidoxime
D	Edrophonium
Answer	C

Id	22
Question	Indicate a muscarinic receptor-blocking drug:
A	Scopolamine
B	Pipecuronium
C	Trimethaphan
D	Pilocarpine
Answer	A

Id	23
Question	The term Aril means:
A	Outgrowth originating from micropyle
B	Succulent growth hileum
C	Enlarged funicle
D	Stiff bristle like appendages
Answer	A

Id	24
Question	Presence of star spots is the characteristic of drug:
A	Cascara
B	Senna
C	Aloe
D	Rhubarb
Answer	D

Id	25
Question	When glycyrrhiza is treated with 80% sulphuric acid, then it shows colour:
A	Yellow
B	Red
C	Green
D	Violet
Answer	A

Id	26
Question	Which alkaloid is not present in cinchona bark?
A	Quinidine
B	Quinine
C	Quinovin
D	Cinchronin
Answer	C

Id	27
Question	Which of the following major aims in drug design is not related to the pharamacodynamics of a drug?
A	The reduction of side effects
B	The maximisation of activity
C	The reduction of toxicity
D	The maximisation of oral bioavailability
Answer	D

Id	28
Question	SAR shows that the important binding groups in morphine are the phenol, aromatic ring and amine. A diagram can be drawn which shows these functional groups and their relative orientations. What is the term for this?
A	Pharmacodynamics
B	Pharmacokinetics
C	Chromophore
D	Pharmacophore
Answer	D

Id	29
Question	What is the symbol π in a QSAR equation?
A	The hydrophobicity of the molecule
B	The electronic effect of a substituent
C	The substituent hydrophobicity constant
D	A measure of the steric properties for a substituent
Answer	C

Id	30
Question	Which of the following statements is false when comparing 3D QSAR with conventional QSAR?
A	Only drugs of the same structural class should be studied by 3D QSAR or QSAR
B	3D QSAR has a predictive quality unlike QSAR
C	Experimental parameters are not required by 3D QSAR, but are for QSAR
D	Results can be shown graphically in 3D QSAR, but not with QSAR
Answer	A

Id	31
Question	Which of the following statements concerning base peak in mass spectrum is correct?
A	It is the peak with the highest mass-to-charge ratio
B	It must be the molecular ion peak
C	It is the peak with the highest relative abundance
D	It is the peak contributed by the isotope of an element of the compound
Answer	C

Id	32
Question	Which of the following shows Fermi Resonance?
A	Aldehyde
B	Ketone
C	Amine
D	Acid
Answer	B

Id	33
Question	Which of the following has increased efficiency of UPLC as per Van Deemter equation?
A	Particle size
B	Flow rate
C	Length of column
D	HETP
Answer	A

Id	34
Question	A ¹ H NMR spectrum of compound C contains a singlet, a triplet and a quartet. Which of the following compounds might C be?
A	$CH_3CH_2CHClCHCl_2$
B	$CH_3CHClCHClCH_3$
C	$CH_3CCl_2CH_2CH_3$
D	$CH_3CH_2CH_2CHCl_2$
Answer	C

Id	35
Question	A compound A analyses as containing 69.52 % C and 10.21 % H. among other absorptions, the IR spectrum of A contains a sharp band at 2250 cm ⁻¹ . The ¹ H NMR spectrum (recorded in CDCl ₃), two triplets (δ 2.34, 1.08 ppm) and a sextet (δ 1.70 ppm) are observed. Compound A is:
A	CH ₃ CH ₂ CH ₂ CN
B	CH ₃ CH ₂ CH ₂ NH ₂
C	(CH ₃) ₂ CHCN
D	CH ₃ CH ₂ CH ₂ HO
Answer	A

Id	36
Question	What is correct order for the basic features of a mass spectrometer?
A	Acceleration, deflection, detection, ionization
B	Ionization, acceleration, deflection, detection
C	Acceleration, ionization, deflection, detection
D	Acceleration, deflection, ionization, detection
Answer	B

Id	37
Question	Which compound has a molecular ion at $m/z = 58$, an infra red absorption at 1650cm^{-1} and just one singlet in its NMR spectrum?
A	Butane
B	Acetone
C	Propionaldehyde
D	2-methylpropane
Answer	B

Id	38
Question	Which of the following method is used to estimate hepatic function?
A	Glucuronic and conjugation
B	Sulfate moiety conjugation
C	Amino acid conjugation
D	Methylation reaction
Answer	C

Id	39
Question	Indicate the anesthetic agent of choice in patient with a liver disease:
A	Lidocaine
B	Bupivacaine
C	Procaine
D	Etidocaine
Answer	C

Id	40
Question	Acetylcholine is not used in clinical practice because:
A	It is very toxic
B	The doses required are very high
C	It is very rapidly hydrolyzed
D	It is very costly
Answer	C

Id	41
Question	Which of the following test is useful for determination of long term control of diabetes mellitus?
A	Fasting blood sugar level
B	IV glucose tolerance test
C	Oral glucose tolerance test
D	HbA 1C level
Answer	D

Id	42
Question	Which of the following is mechanism of action of Abciximab?
A	Block ADP receptors
B	Block glycoprotein IIb/IIIa receptors
C	Inhibit cyclooxygenase
D	Selective thrombin receptor blockade
Answer	B

Id	43
Question	Isosorbidedinitrile acts by
A	By blocking the activity of angiotensin II
B	Elimination of excess fluid
C	Reduction of pre load
D	Reduction of after load
Answer	C

Id	44
Question	Choramphenicol uses require proper caution in which of the following patient population?
A	Geriatric
B	Neonates
C	Adult
D	CHF patients
Answer	B

Id	45
Question	Atropine is
A	α -blocker
B	β -blocker
C	Nicotinic blocker
D	Muscarinic blocker
Answer	D

Id	46
Question	Quinidine is used as
A	Antihypertensive
B	Antianginal
C	Antiarrhythmic
D	Antihyperlipidemics
Answer	C

Id	47
Question	Aspirin is contraindicated in
A	Low blood pressure
B	High blood pressure
C	Dengue
D	Diabetes
Answer	C

Id	48
Question	Ca-channel blocker contraindicated in
A	Angina pectoris
B	Arrhythmia
C	CHF
D	Hypertension
Answer	C

Id	49
Question	Which of the anticholinergic drug used in Parkinsons disease?
A	Atropine
B	Benzhexol
C	Propenthaline
D	Cyclopentolate
Answer	B

Id	50
Question	Receptor agonist poses
A	Affinity but not No intrinsic activity
B	Intrinsic activity but No affinity
C	Affinity and intrinsic activity with positive sign
D	Affinity and intrinsic activity with negative sign
Answer	C