

1. The most stable form of cocoa butter is

- [A] alpha
- [B] beta
- [C] gamma
- [D] crystalline

2. The metric volume of household measurement for one tumblerful is

- [A] 120 ml
- [B] 240 ml
- [C] 60 ml
- [D] 30 ml

3. Excellent powder flow is characterized by an angle of repose value

- [A] <25
- [B] >40
- [C] 25-30
- [D] 30-40

4. Reciprocal of viscosity is termed as

- [A] relative viscosity
- [B] specific viscosity
- [C] fluidity
- [D] kinematic viscosity

5. Half-life of a first-order reaction can be defined as

[A] $t_{1/2} = \frac{a}{2k}$

[B] $t_{1/2} = \frac{1}{ak}$

[C] $t_{1/2} = \frac{3}{2} \cdot \frac{1}{a^2k}$

[D] $t_{1/2} = \frac{0.693}{k}$

6. Degree of flocculation relates

- [A] sedimentation volume of flocculated suspension to sedimentation volume of suspension when deflocculated
- [B] sedimentation volume of deflocculated suspension to sedimentation volume of suspension when flocculated
- [C] sedimentation volume of flocculated suspension
- [D] sedimentation volume of deflocculated suspension

7. Amphetamine is a

- [A] Schedule G drug
- [B] Schedule H drug
- [C] Schedule X drug
- [D] Schedule C drug

8. Stearic acid and potassium hydroxide are used in the preparation of

- [A] cold cream
- [B] vanishing cream
- [C] night cream
- [D] hand cream

9. Cyclones are used primarily for the separation of

- [A] solids from gases
- [B] solids only
- [C] fluids only
- [D] solids from fluids

10. Boiling point diagrams represent boiling point and equilibrium composition relationship of all mixtures at

- [A] constant pressure
- [B] constant temperature
- [C] constant pH
- [D] constant composition

11. MRT means

- [A] Mean Residual Time
- [B] Minimum Residual Time
- [C] Mean Residence Time
- [D] Minimum Residence Time

- 12.** The kinetics of capacity limited processes is described by
 [A] Arrhenius equation
 [B] Noyes-Whitney equation
 [C] Michaelis-Menten equation
 [D] Hixson Crowell equation
- 13.** The approximate filling capacity of empty size 2 capsule is
 [A] 0.15 ml
 [B] 0.75 ml
 [C] 0.55 ml
 [D] 0.4 ml
- 14.** Propellant 144 means
 [A] dichlorotetrafluoroethane
 [B] dichlorodifluoromethane
 [C] difluoroethane
 [D] butane
- 15.** Long term stability testing is carried out for a minimum period of
 [A] 6 months
 [B] 12 months
 [C] 3 months
 [D] 9 months
- 16.** Water attack test is conducted for
 [A] highly resistant borosilicate glass
 [B] soda lime glass
 [C] general purpose soda lime glass
 [D] treated soda lime glass
- 17.** MedDRA is assigned under the category of
 [A] multidisciplinary guidelines
 [B] quality guidelines
 [C] safety guidelines
 [D] efficacy guidelines
- 18.** CTD contains
 [A] 3 modules
 [B] 4 modules
 [C] 5 modules
 [D] 6 modules
- 19.** TIFAC stands for
 [A] Technical Information Formation and Assessment Council
 [B] Technical Information Forecasting and Assessment Council
 [C] Technology Implementation Formation and Assessment Council
 [D] Technology Information Formation and Accreditation Council
- 20.** Level 6 of six sigma concept represents a percent accuracy of
 [A] 93.33
 [B] 69.10
 [C] 97.77
 [D] 99.99
- 21.** Dipalmitoylphosphatidylcholine is a
 [A] glycosphingolipid
 [B] synthetic phospholipid
 [C] sphingolipid
 [D] steroid
- 22.** Phase separation coacervation technique is used to prepare
 [A] microsphere
 [B] emulsion
 [C] suspension
 [D] solution
- 23.** Glasswares can be sterilized by dry heat method as per BP at
 [A] 116 °C for 90 mins
 [B] 100 °C for 90 mins
 [C] 160 °C for 60 mins
 [D] 121 °C for 60 mins
- 24.** MacConkey agar is a/an
 [A] enriched media
 [B] selective media
 [C] indicator media
 [D] differential media

25. The preservative which cannot be used in eyedrop as per BPC is
 [A] phenol glycerin -0.01%
 [B] benzalkonium chloride -0.02%
 [C] chlorhexidine acetate -0.01%
 [D] phenylmercuric acetate - 0.002%
26. X-ray diffraction study is one of the most powerful method for
 [A] determination of number of protons
 [B] determination of molecular weight
 [C] determination of wavelength
 [D] determination of crystal lattice
27. Which one of the following is **not** a method of physical evaluation of crude drugs?
 [A] Sulphated ash
 [B] UV-visible spectroscopy
 [C] Shinoda test
 [D] Freezing point
28. Hamamelis leaves are adulterated with
 [A] lead shots
 [B] xanthium leaves
 [C] dandelion leaves
 [D] chestnut leaves
29. Camphor is obtained from the wood chips of *Cinnamomum camphora* by the process of
 [A] sublimation
 [B] fractional crystallisation
 [C] fractional liberation
 [D] counter-current distribution
30. Uridine triphosphate (UTP) is involved in the biosynthesis of
 [A] alkaloids
 [B] glycosides
 [C] tannins
 [D] volatile oils
31. The biological source for Cape aloe is
 [A] aloe barbadensis
 [B] aloe perryi
 [C] Both (a) and (b)
 [D] aloe ferox
32. Each mericarp of *Coriandrum sativum* fruits transverse section shows _____ number of vittae.
 [A] four
 [B] six
 [C] two
 [D] twelve
33. Which of the following alkaloids are **not** derived from amino acids and **do not** show positive reactions with alkaloidal reagents?
 [A] Pseudo alkaloids
 [B] True alkaloids
 [C] Proto alkaloids
 [D] Both (a) and (c)
34. Which of the following compounds is involved in the synthesis of antitussive compound present in opium?
 [A] Morphine
 [B] Phenylalanine
 [C] Tyrosine
 [D] Thebaine
35. Isolation of Strychnine from Ignatius beans was first time reported by
 [A] Sertürner
 [B] Pelletier
 [C] Derosne
 [D] Keursten
36. Pruning and burning are which method of pest control?
 [A] Chemical
 [B] Biological
 [C] Mechanical
 [D] Agricultural
37. Which one of the following plant hormones **do not** promote growth?
 [A] Abscisic acid (ABA)
 [B] Cytokinin
 [C] Ethylene
 [D] Gibberellic acid

38. Which one of the following is **not** a direct gene transfer technique?
 [A] Electroporation
 [B] Agrobacterium-mediated plant transformation
 [C] Microinjection
 [D] Silicon carbide whiskers
39. Which one of the following is a type of Unani formulation?
 [A] Majoon
 [B] Gutika
 [C] Bhasma
 [D] Arishta
40. Wheatgrass is used as nutraceutical for which of the below mentioned health benefits?
 [A] Carminative
 [B] Expectorant
 [C] Adaptogenic
 [D] General tonic
41. The interaction caused by prescribing cyclosporine along with ginseng
 [A] leads to additive interactions
 [B] leads to synergistic interactions
 [C] leads to antagonistic interactions
 [D] nullifies the effect
42. The term cosmeceuticals was first time referred by
 [A] Albert Kligman
 [B] Galen
 [C] Samuel Hahnemann
 [D] Raymond Reed
43. Which one of the following natural gums/mucilages belongs to 'cationic' category?
 [A] Chitin
 [B] Pectin
 [C] Guar Gum
 [D] Carboxymethyl cellulose
44. Protection of IPR (Intellectual Property Rights) for scientific innovations can be under
 [A] copyright
 [B] patent law
 [C] trademark
 [D] plant breeder's right
45. Ginkgo biloba has which of the following adverse effects?
 [A] Nephrotoxicity
 [B] Hepatotoxicity
 [C] Seizures and loss of consciousness
 [D] Allergy
46. Section 33EEB as per the D & C Act, 1940 states the regulations on
 [A] manufacture and sale of ASU drugs
 [B] adulterated drugs
 [C] misbranded drugs
 [D] spurious drugs
47. Triphala churna is a mixture of
 [A] *Embelica officinalis* + *Terminalia arjuna* + *Terminalia chebula*
 [B] *Phyllanthus amarus* + *Terminalia chebula* + *Terminalia arjuna*
 [C] *Embelica officinalis* + *Terminalia bellirica* + *Terminalia chebula*
 [D] *Embelia ribes* + *Terminalia chebula* + *Terminalia bellirica*
48. The total phenolic content present in the plant can be determined by
 [A] aluminium chloride method
 [B] Folin-Ciocalteu method
 [C] 2,4-dinitrophenyl hydrazine method
 [D] Folin-Denis method

49. Which of the following drugs belongs to the family 'Flacourtiaceae'?
- [A] Castor oil
[B] Wool fat
[C] Bees wax
[D] Chaulmoogra oil
50. The half-life of ^{14}C radioisotope used in biogenetic studies is
- [A] 12.43 years
[B] 87.4 days
[C] 5730 years
[D] 8.04 days
51. _____ cartilage replaces periosteum on bone surfaces that forms joint.
- [A] Elastic
[B] Fibrous
[C] Hyaline
[D] Collagen fibers
52. Parotid gland is present in
- [A] below mandible
[B] below acoustic meatus
[C] below tongue
[D] below maxilla
53. DNA replication in cell cycle takes place at
- [A] S
[B] G1
[C] G2
[D] M
54. Joint between frontal and parietal bones of skull is
- [A] sagittal suture
[B] squamous suture
[C] lambdoid suture
[D] coronal suture
55. The number of bones in cervical vertebrae is
- [A] 5
[B] 6
[C] 7
[D] 12
56. Diencephalon connects
- [A] cerebrum and midbrain
[B] thalamus and hypothalamus
[C] pons and cerebellum
[D] pons and medulla oblongata
57. The normal visual acuity score is
- [A] 6/6
[B] 6/4
[C] 7/7
[D] 4/6
58. Lateral movement of eye by lateral rectus muscle is controlled by
- [A] oculomotor nerve
[B] abducens nerve
[C] trochlear nerve
[D] hypoglossal nerve
59. Erythrocytes are formed by
- [A] megakaryocyte
[B] reticulocyte
[C] myelocyte
[D] lymphocyte
60. Blood pressure is measured in terms of
- [A] mm
[B] mmHg
[C] mg/dL
[D] gf
61. Centrally acting skeletal muscle relaxant is
- [A] dantrolene
[B] hemicholinium
[C] aluronium
[D] tizanidine

- 62.** An example for natural antidepressant agent is
 [A] phenelzine
 [B] L-tryptophan
 [C] tranylcypromine
 [D] iproniazid
- 63.** Guanine analogue used against herpes virus is
 [A] lamivudine
 [B] zidovudine
 [C] acyclovir
 [D] zanamivir
- 64.** Non sedative type of antihistamine is
 [A] promethazine
 [B] diphenhydramine
 [C] fexofenadine
 [D] chlorphenirae
- 65.** Nitrates act by
 [A] reducing afterload
 [B] reducing preload
 [C] coronary vasodilation
 [D] All of the above
- 66.** Atovaquone and antifolate drugs proguanil in combination gives
 [A] additive effect
 [B] synergistic effect
 [C] antagonistic effect
 [D] no effect
- 67.** A peptide antibiotic used by parenteral route in Tuberculosis is
 [A] Cyclosporine
 [B] Ethambutol
 [C] INH
 [D] Capreomycin
- 68.** Selective COX-1 inhibitor used in osteoarthritis along with methotrexate is
 [A] diclofenac
 [B] indomethacin
 [C] piroxicam
 [D] sodium salicylate
- 69.** Hormone secreted by somatotrophin is
 [A] FSH
 [B] TSH
 [C] GH
 [D] ACTH
- 70.** Oral antibiotic drugs acting at muscular level is
 [A] glitazones
 [B] sulfonyl ureas
 [C] biguanides
 [D] alpha-glucosidase
- 71.** Ischemia due to fixed atheromatous stenosis of one or more coronary arteries is
 [A] M1
 [B] stable angina
 [C] arrhythmia
 [D] heart failure
- 72.** The right and left hemispheres of brain are connected by
 [A] internal capsule
 [B] septum pellucidum
 [C] corpus collasum
 [D] corpus striatum
- 73.** Nicotinic receptors belong to the class of
 [A] ligand-gated ion channels
 [B] GPCR
 [C] kinase linked receptor
 [D] nuclear receptor

- 74.** Imbalance in Dopamine and Acetylcholine neuro transmitters in brain lead to
 [A] Alzheimer's disease
 [B] Parkinson's disease
 [C] Huntington's disease
 [D] Schizophrenia
- 75.** Which type of tastebud is degenerated in early childhood?
 [A] Vallate papillae
 [B] Fungiform papillae
 [C] Filiform papillae
 [D] Foliate papillae
- 76.** Benzopyrrole is converted into indigotin in the presence of
 [A] O₂
 [B] O₃
 [C] H₂
 [D] N₂
- 77.** Meso compounds are optically
 [A] active
 [B] reactive
 [C] highly reactive
 [D] inactive
- 78.** Melting point and stability of cis-isomers are
 [A] lower than trans isomer
 [B] higher than trans isomers
 [C] same as trans isomers
 [D] None of the above
- 79.** Which of the following cycloalkanes is having angle very close to the tetrahedral angle?
 [A] cyclopropane
 [B] cyclobutane
 [C] cyclopentane
 [D] Both (a) and (b)
- 80.** The drying oils are the important constituents of
 [A] paints
 [B] varnishes
 [C] Both (a) and (b)
 [D] edible fat
- 81.** What is/are the effect(s) of electron releasing groups on the acidity of phenols?
 [A] Increases the acidity
 [B] Decreases the acidity
 [C] No effect
 [D] Both (a) and (b)
- 82.** What is the effect of electron releasing groups on basicity of amines?
 [A] Increases the basicity
 [B] Decreases the basicity
 [C] No effect
 [D] Both (a) and (b)
- 83.** The common solvents used in Friedal-Craft reaction are
 [A] Aniline and CS₂
 [B] Nitrobenzene and Liquified CO₂
 [C] Bromobenzene and CS₂
 [D] Nitrobenzene and CS₂
- 84.** An example of antifolate anticancer drug is
 [A] Thiotepa
 [B] Lomustine
 [C] Methotrexate
 [D] Busulfan
- 85.** The principal enzymes involved in catacholamine metabolism are
 [A] MAO and COMT
 [B] MAR + COMT
 [C] MAO and COET
 [D] MAR + COET
- 86.** The number 450 in cytochrome P450 refers to its
 [A] λ_{\max}
 [B] C_{max}
 [C] Isosbestic point
 [D] Bathochromic shift

87. Procaine hydrochloride cannot be used in the treatment of arrhythmia due to the hypotensive effect of its metabolite
 [A] diethylaminoethanol
 [B] dimethylaminoethanol
 [C] diethylaminomethanol
 [D] dimethylaminomethanol
88. An example of vitamin K antagonist is
 [A] o-phenylenediamine
 [B] guanidine
 [C] phenindione
 [D] oxyphenbutazone
89. Which of the following diethylstilbestrol isomers is more active?
 [A] cis
 [B] meso
 [C] racemic
 [D] trans
90. Prontosil is the prodrug of
 [A] sulfanilamide
 [B] sulfadiazine
 [C] sulfamethoxazole
 [D] sulfamerazine
91. The simplest conductance cell used to measure the conductance of a liquid in an open container is
 [A] dip type conductance shell
 [B] dip type conductance cell
 [C] open type conductance cell
 [D] open type conductance shell
92. The IR radiation source Globar is made up of
 [A] ferrous sulphide
 [B] cadmium sulphide
 [C] selenium sulphide
 [D] silicon carbide
93. The atomic and molecular composition of inorganic and organic compounds are measured by using
 [A] mass spectrometry
 [B] IR spectroscopy
 [C] NMR spectroscopy
 [D] mass spectroscopy
94. The resolution power of a monochromator can be determined by the size and dispersing characteristics of
 [A] grating
 [B] prism
 [C] cuvette
 [D] Both (a) and (b)
95. Turbidity of a sample can be measured by using
 [A] turbidimetry
 [B] nephelometry
 [C] Both (a) and (b)
 [D] colorimetry
96. Systematic errors in analysis are due to
 [A] improper instrument calibration procedure
 [B] insufficient purity of reagents used
 [C] improper operation of the measuring instrument
 [D] All of the above
97. The molecular formula of Epsom salt is
 [A] $MgSO_4 \cdot 7H_2O$
 [B] $Na_2S_2O_3 \cdot 5H_2O$
 [C] $CuSO_4 \cdot H_2O$
 [D] $Na_2CO_3 \cdot 10H_2O$
98. An example of anticaries agent is
 [A] calcium carbonate
 [B] calcium chloride
 [C] stannous chloride
 [D] stannous fluoride
99. Citric acid cycle is also known as
 [A] tricarboxylic acid cycle
 [B] Krebs cycle
 [C] Both (a) and (b)
 [D] urea cycle
100. _____ is an example of uncoupler of oxidative phosphorylation.
 [A] 2,4-Dinitrophenol
 [B] Phenol
 [C] Resorcinol
 [D] 2,4-Diaminophenol