

NIPER PYQ 2019

1. Which one of the following is a selective 5-HT₁₀ receptor agonist

- (a) Buspirone
- (b) Ondansetron
- (c) Sumatriptan
- (d) Cisapride

Correct Answer : (c) Sumatriptan

2. Deamination of 5-methyl cytosine produces

- (a) Uracil
- (b) Cytosine
- (c) Adenine
- (d) Thymine

Correct Answer : (d) Thymine

3. Which enzyme is used for coupling of DNA helices

- (a) Gyrase
- (b) Ligases
- (c) Lyases
- (d) Isomerases

Correct Answer : (b) Ligases

4. Which of the following are a non-reducing sugars

- (a) Lactose and galactose
- (b) Fructose and ribose
- (c) Isomaltose and Maltose
- (d) Sucrose and Trehalose

Correct Answer : (d) Sucrose and Trehalose

5. Which nucleic acid base is absent in RNA

- (a) Guanine
- (b) Adenine
- (c) Thymine
- (d) Uracil

Correct Answer : (c) Thymine

6. The number of carbons in stearic acid is

- (a) 15
- (b) 16
- (c) 17
- (d) 18

Correct Answer : (d) 18

7. Who discovered Oxygen

- (a) Joseph Priestley
- (b) Fritz Haber
- (c) Joseph Black
- (d) Daniel Rutherford

Correct Answer : (a) Joseph Priestley

8. Identify the reaction in which acyl azide is converted to isocyanate

- (a) Lossen rearrangement
- (b) Schmidt reaction
- (c) Curtius rearrangement
- (d) Wolff rearrangement

Correct Answer : (c) Curtius rearrangement

9. According to Higuchi model, drug release from porous matrix is directly related to

- (a) time
- (b) square root of time

(c) square of time

(d) porosity

Correct Answer : (b) square root of time

10. Position of N in purine ring are

(a) 1,5,7

(b) 1,3,7

(c) 3,5,7

(d) 1,3,5

Correct Answer : (b) 1,3,7

11. Which of the following models cannot be used to evaluate model-dependent drug release

(a) Higuchi's square root model Hixcon-Crowell's cube root law

(b) The Weibull model

(c) The first-order kinetics model

(d) Gaussian distribution

Correct Answer : (a) Higuchi's square root model Hixcon-Crowell's cube root law

12. Humira is a brand name of which of the monoclonal antibody

(a) Adalimumab

(b) Trastuzumab

(c) Rituximab

(d) Aldeslukin

Correct Answer : (a) Adalimumab

13. Instantaneous distribution to most body tissues and fluids is assumed in which of the following models

(a) One-compartment model

(b) Two-compartment model

(c) Multicompartment model

(d) Data is insufficient

Correct Answer : (a) One-compartment model

14. First-line anti-Parkinson drug, also used to treat hyperprolactinemia at lower doses

- (a) Amantadine
- (b) Levodopa
- (c) Bromocriptine
- (d) Benztropine

Correct Answer : (c) Bromocriptine

15. Agonism at which dopamine receptor subtype can result in dopamine dysregulation syndrome

- (a) D1
- (b) D2
- (c) D3
- (d) D4

Correct Answer : (c) D3

16. Selegiline used in treatment of Parkinson's disease. Pick up the wrong statement about selegiline

- (a) It is tertiary amine with a propyne, phenylpropyl and methyl group
- (b) It is irreversible inhibitor of MAO B
- (c) It undergoes higher first pass metabolism
- (d) It produces the characteristic cheese effect

Correct Answer : (d) It produces the characteristic cheese effect

17. If 3 g of a drug are added and distributed throughout the compartment and the resulting concentration is 0.15 g/L, calculate the volume of the compartment

- (a) 10 L
- (b) 20 L
- (c) 30 L
- (d) 200 L

Correct Answer : (b) 20 L

18. Glomerular filtration rate may be measured using

- (a) Insulin
- (b) para-aminohippuric acid
- (c) Glucagon
- (d) Inulin

Correct Answer : (d) Inulin

19. Number of isoprene units in carotenoids are

- (a) 5
- (b) 6
- (c) 7
- (d) 8

Correct Answer : (d) 8

20. First Satellite launched in space by India was

- (a) Aryabhata
- (b) Chandrayaan
- (c) Sputnik
- (d) Skylab

Correct Answer : (a) Aryabhata

21. Which is denatured spirit

- (a) ethanol only
- (b) ethanol and methanol (50%)
- (c) ethanol and methanol (5%)
- (d) methanol only

Correct Answer : (c) ethanol and methanol (5%)

22. Widely used insecticide rotenone is

- (a) Sesquiterpene
- (b) Isoflavonoid
- (c) Steroid
- (d) Lignin

Correct Answer : (b) Isoflavonoid

23. If the number of isoprene units is 5, the compound may be

- (a) $C_{15}H_{24}$
- (b) $C_{20}H_{32}$
- (c) $C_{25}H_{40}$
- (d) $C_{35}H_{56}$

Correct Answer : (c) $C_{25}H_{40}$

24. Capping is due to

- (a) Large amount of fines in the granules
- (b) Improper moisture content of granules
- (c) Improper or insufficient binder or lubricant
- (d) All of the above

Correct Answer : (d) All of the above

25. Spirulina (*Arthrospira platensis*), is aquatic cyanobacterium. What is its protein content?

- (a) 10-30%
- (b) 30-50%
- (c) 50-70%
- (d) 70-90%

Correct Answer : (c) 50-70%

26. In the Fajans method of argentometry, the indicator used is

- (a) Dichlorofluorescein
- (b) Nitrobenzene

(c) Ferric ammonium sulfate

(d) Potassium chromate

Correct Answer : (a) Dichlorofluorescein

27. Aureomycin was discovered by

(a) Selman Waksman

(b) Benjamin Minge Duggar

(c) Yellapragada Subbarao

(d) Abelardo Aguilar

Correct Answer : (b) Benjamin Minge Duggar

28. Fluconazole has

(a) One imidazole ring

(b) One triazole ring

(c) Two triazole rings

(d) One Imidazole and one triazole ring

Correct Answer : (b) One triazole ring

29. Factor-VIII deficiency causes

(a) Haemophilia A

(b) Haemophilia B

(c) Haemophilia C

(d) von Willebrand disease

Correct Answer : (a) Haemophilia A

30. Isoniazid is a prodrug that is activated by heme enzyme

(a) CYP in liver of host

(b) Catalase peroxidase (KatG) of *Mycobacterium tuberculosis*

(c) Enoyl ACP reductase of *Mycobacterium tuberculosis*

(d) Azoreductase of gut microbial flora

Correct Answer : (b) Catalase peroxidase (KatG) of Mycobacterium tuberculosis

31. Average GFR is ____ml/min

- (a) ≥ 90
- (b) 60-89
- (c) 30-59
- (d) 15-29

Correct Answer : (a) ≥ 90

32. Porphyrin ring consists of 4 pyrrole rings linked by

- (a) Methylene bridges
- (b) Methine bridges
- (c) Methoxy bridges
- (d) Methyl bridges

Correct Answer : (b) Methine bridges

33. Which of the following is a reducing sugar

- (a) Sucrose
- (b) Trehalose
- (c) Isomaltose
- (d) Agar

Correct Answer : (c) Isomaltose

34. Family of liquorice is

- (a) Fabaceae
- (b) Apiaceae
- (c) Lamiaceae
- (d) Apocynaceae

Correct Answer : (a) Fabaceae

35. BCS-IV drug

- (a) Atenolol
- (b) Paclitaxel
- (c) Cimetidine
- (d) Verapamil

Correct Answer : (b) Paclitaxel

36. Residual Solvent detected by

- (a) GC
- (b) HPLC
- (c) AAS
- (d)

Correct Answer : (a) GC

37. Which one of the following is/are neurodegenerative disease/s

- (a) Amyotrophic lateral sclerosis
- (b) Huntington's chorea
- (c) Crutzfeldt Jacob disease
- (d) All of the above

Correct Answer : (d) All of the above

38. Vitamin required for synthesis of thrombin is

- (a) Vitamin A
- (b) Vitamin D
- (c) Vitamin K
- (d) Vitamin E

Correct Answer : (c) Vitamin K

39. Indicator used in titration of ferrous gluconate is

- (a) Ferroin

- (b) Methylene blue
- (c) Starch-iodide
- (d) Erichrome black

Correct Answer : (a) Ferroin

40. How many isoprene unit are involved in construction of triterpenes

- (a) 3
- (b) 4
- (c) 5
- (d) 6

Correct Answer : (d) 6

41. For a generic drug to be bioequivalent to an innovator drug (per FDA), it must be measured in – _____ of subjects to fall within _____ of the mean of the test population bioavailability

- (a) 50,50
- (b) 80,20
- (c) 20,80
- (d) 95,5

Correct Answer : (b) 80,20

42. Drave's test used for evaluation of

- (a) Wetting agent
- (b) Disintegrant
- (c) Binder
- (d) Lubricant

Correct Answer : (a) Wetting agent

43. New Drug Application is done

- (a) Between preclinical studies and Phase I
- (b) After Phase I
- (c) After phase II

(d) After phase III

Correct Answer : (d) After phase III

44. Aniline is synthesized by

- (a) Zinin reaction and Bechamp reduction
- (b) Cumene process and Coal pyrolysis
- (c) Kolbe-Schmitt reaction
- (d) Wurtz-Fittig reaction

Correct Answer : (a) Zinin reaction and Bechamp reduction

45. The Wittig reaction or Wittig olefination is a chemical reaction of an aldehyde or ketone with

- (a) a triphenyl phosphonium ylide
- (b) a triphenyl boronium ion
- (c) a triphenyl carbocation
- (d) None of the above

Correct Answer : (a) a triphenyl phosphonium ylide

46. Gibb's Donnan effect creates

- (a) Diffusion
- (b) Surface tension
- (c) Osmotic pressure
- (d) None of the above

Correct Answer : (c) Osmotic pressure

47. First line defense antibody includes

- (a) IgA
- (b) IgD
- (c) IgE
- (d) IgM

Correct Answer : (a) IgA

48. Indication of .com in top level domain is

- (a) Commercial
- (b) Communication
- (c) Commodity
- (d) Command

Correct Answer : (a) Commercial

49. Ibuprofen is ——— drug

- (a) Schedule C
- (b) Schedule H
- (c) Schedule X
- (d) Schedule J

Correct Answer : (b) Schedule H

50. Class IV drug

- (a) Verapamil
- (b) Aceclofenac
- (c) Cimetidine
- (d) Palitaxel

Correct Answer : (d) Palitaxel

51. What is the pH required for activation for gastric lipase enzyme

- (a) 1-3
- (b) 4-5
- (c) 6-7
- (d) 7-8

Correct Answer : (b) 4-5

52. Stimulation of which adrenergic receptors exerts potent anabolic effects

- (a) β_1
- (b) β_2
- (c) β_3
- (d) α

Correct Answer : (b) β_2

53. World Diabetes day is celebrated on

- (a) 14 November
- (b) 15 June
- (c) 11 February
- (d) 11 January

Correct Answer : (a) 14 November

54. Starting material for synthesis of polyvinylalcohol is

- (a) Vinyl alcohol
- (b) Poly (vinyl acetate)
- (c) Vinyl chloride
- (d) Divinyle acetate

Correct Answer : (b) Poly (vinyl acetate)

55. Which of the following residues are not phosphorylated in the catalytic mechanism or regulation of an enzyme

- (a) K
- (b) S
- (c) T
- (d) Y

Correct Answer : (a) K

56. Mechanism of action of memantine

- (a) Glutamate antagonist
- (b) AMPA antagonist

(c) NMDA antagonist

(d) GABA agonist

Correct Answer : (c) NMDA antagonist

57. Which of the following must be true for an optically active compound

(a) The molecular configuration is achiral

(b) The molecular configuration is chiral

(c) The compound is a racemic mixture of enantiomers

(d) The molecular configuration must have two or more stereogenic centers

Correct Answer : (b) The molecular configuration is chiral

58. Liebermann-Burchard reaction uses the reagent as ———— for detection of sterol in chloroform solution. <https://www.pyqonline.com>

(a) acetic anhydride and conc. sulphuric acid

(b) succinic anhydride and conc. sulphuric acid

(c) acetic anhydride and conc. nitric acid

(d) acetic anhydride and picric acid

Correct Answer : (a) acetic anhydride and conc. sulphuric acid

59. Which of the following does not contain heterocyclic ring

(a) Fexofenadine

(b) Lofexidine

(c) Afimoxifene

(d) Apixaban

Correct Answer : (c) Afimoxifene

60. An anionic surfactant is

(a) Polyalkylester

(b) Sodium lauryl sulfate

(c) Cetyl ammonium Sulphate

(d) Lecithin

Correct Answer : (b) Sodium lauryl sulfate

61. Menthol contains

- (a) 8 carbons
- (b) 10 carbons
- (c) 12 carbons
- (d) 15 carbons

Correct Answer : (b) 10 carbons

62. Rickets is due to deficiency of

- (a) Vitamin A
- (b) Vitamin D
- (c) Vitamin K
- (d) Vitamin E

Correct Answer : (b) Vitamin D

63. Bradikinesia means

- (a) Slower heart rate
- (b) Faster heart rate
- (c) Slowness of performed movement
- (d) poverty of spontaneous movement

Correct Answer : (c) Slowness of performed movement

64. What is the composition of nucleotide

- (a) a sugar + a phosphate
- (b) a base + a sugar
- (c) a base + a phosphate
- (d) a base + a sugar + phosphate

Correct Answer : (d) a base + a sugar + phosphate

65. Particle size of aerosol is determined by

- (a) Cascade impactor
- (b) Gas chromatography
- (c) Anderson pipette
- (d) pycnometer

Correct Answer : (a) Cascade impactor

66. What do you mean by integrals in NMR spectrum

- (a) Number of signals
- (b) Splitting of each signal
- (c) Coupling of signals
- (d) Area of each signal

Correct Answer : (c) Coupling of signals

67. Which of the following antitubercular drugs should not be used in pregnant female patients

- (a) INH
- (b) Streptomycin
- (c) Rifampicin
- (d) Ethambutol

Correct Answer : (b) Streptomycin

68. By using cryogenic shims, field homogeneity can be as good as

- (a) 0.01 ppm
- (b) 1 ppm
- (c) 1 ppb
- (d) 10 ppm

Correct Answer : (c) 1 ppb

69. Ethambutol causes

- (a) Alopecia

- (b) Visual damage
- (c) Nephrotoxicity
- (d) Virilization

Correct Answer : (b) Visual damage

70. Chemical shifts originate from

- (a) Magnetic momentum
- (b) Electron shielding
- (c) Free induction decay
- (d) Scalar coupling (J-coupling)

Correct Answer : (b) Electron shielding

71. Flow properties of powders are affected by

- (a) Humidity of area
- (b) Shapes of particles
- (c) Constituents of powder
- (d) All of the above

Correct Answer : (d) All of the above

72. ——— is enteric tablet coating material

- (a) Sodium carboxymethyl cellulose
- (b) Hydroxypropyl methylcellulose
- (c) Crosslinked Povidone
- (d) Polyvinyl acetate

Correct Answer : (c) Crosslinked Povidone

73. How many amino acids are essential

- (a) 8
- (b) 9
- (c) 10

(d) 11

Correct Answer : (c) 10

74. The full form of STM is

- (a) Scanning Tunneling Microscope
- (b) Scientific Technical Microscope
- (c) Standard Technical Microscope
- (d) Super Tensile Microscope

Correct Answer : (a) Scanning Tunneling Microscope

75. Patisiran is an approved drug. Chemically it is

- (a) a double-stranded short interfering RNA
- (b) a single-stranded DNA
- (c) a double-stranded short interfering RNA
- (d) Protein

Correct Answer : (a) a double-stranded short interfering RNA

76. Tyndallization is

- (a) heating to BP for 15 minutes for 3 successive days
- (b) sterilization at 160°C
- (c) moist heat sterilization at 121°C
- (d) none of the above

Correct Answer : (a) heating to BP for 15 minutes for 3 successive days

77. Genus of Nipah virus

- (a) Henipavirus
- (b) Deltavirus
- (c) Hepadnaviruses
- (d) Alphacoronavirus

Correct Answer : (a) Henipavirus

78. Identification for specific RNA is done by

- (a) Southern blotting
- (b) Northern blotting
- (c) Western blotting
- (d) Eastern blotting

Correct Answer : (b) Northern blotting

79. HLB range for W/O emulsifier is

- (a) 4-6
- (b) 7-9
- (c) 8-16
- (d) 15-18

Correct Answer : (a) 4-6

80. Which drug is used to treat NSAID induced peptic ulceration

- (a) Mifepristone
- (b) Misopristol
- (c) Mephenesin
- (d) Ulipristal acetate

Correct Answer : (b) Misopristol

81. Opioid analogue with antidiarrheal activity

- (a) Loperamide
- (b) Sufentanil
- (c) Tapentadol
- (d) Piritamide

Correct Answer : (a) Loperamide

82. Mitochondrial genomes in humans use start codons as

- (a) AUG, AUA and AUU
- (b) AUG, GUG, UUG
- (c) AUG, CUG, CAG
- (d) UAA, UAG, UGA

Correct Answer : (a) AUG, AUA and AUU

83. In the cell culture, which gas is used in cryopreservation of animal cells

- (a) Oxygen
- (b) Nitrogen
- (c) Sulphur dioxide
- (d) Carbon dioxide

Correct Answer : (d) Carbon dioxide

84. The relation between wave number and frequency is

- (a) directly proportional
- (b) indirectly proportional
- (c) equal
- (d) none of the above

Correct Answer : (b) indirectly proportional

85. Karl Fischer titration

- (a) reduction of I_2 by SO_2 in presence water and by removal of pyridine iodide
- (b) reduction of I_2 by SO_2 in presence of water and removal of pyridine sulfate trioxide
- (c) reduction of I_2 by SO_2 in presence of water and removal of pyridine iodate
- (d) reduction of I_2 by pyridine in presence of water, SO_2 and removal of pyridine sulfate trioxide

Correct Answer : (a) reduction of I_2 by SO_2 in presence water and by removal of pyridine iodide

86. Which of the following is a prodrug

- (a) Enalapril
- (b) Digoxin

- (c) Codeine
- (d) Epinephrine

Correct Answer : (a) Enalapril

87. Which is a monoclonal antibodies act as an antiplatelet

- (a) Tirofiban
- (b) Abciximab
- (c) Daclizumab
- (d) Acipimox

Correct Answer : (b) Abciximab

88. Craig apparatus is used in experiments for

- (a) Coulter Counter method
- (b) Countercurrent distribution
- (c) Solubility determination
- (d) Vapour pressure determination

Correct Answer : (b) Countercurrent distribution

89. Number of disulfide bonds present in insulin

- (a) 1
- (b) 2
- (c) 3
- (d) 4

Correct Answer : (c) 3

90. Glucagon is a linear peptide hormone of how many amino acids

- (a) 28
- (b) 29
- (c) 30
- (d) 31

Correct Answer : (b) 29

91. Identify protophilic solvent

- (a) Carbon tetrachloride
- (b) Carbon disulphide
- (c) Chloroforms
- (d) None of the above

Correct Answer : (d) None of the above

92. Inverse agonist means the ligand binds to receptor and

- (a) produces the effect of agonist
- (b) opposes the effects of agonist
- (c) produces effect opposite to agonist
- (d) produces effect like antagonist

Correct Answer : (c) produces effect opposite to agonist

93. Which protein is used in immune reactions

- (a) Complement proteins
- (b) Ubiquitin
- (c) Immunophilins
- (d) Heat shock proteins

Correct Answer : (a) Complement proteins

94. Which of the following is not a component of mass spectrometer

- (a) Inlet system
- (b) Ion transducer
- (c) Sweep generator
- (d) Mass analyser

Correct Answer : (b) Ion transducer

95. International yoga day is celebrated on

- (a) 25 May
- (b) 21 April
- (c) 21 June
- (d) 21 July

Correct Answer : (c) 21 June

96. How many teams participated in 2018 FIFA World Cup

- (a) 16
- (b) 32
- (c) 38
- (d) 40

Correct Answer : (b) 32

97. The following structure is not found in plant cells

- (a) Vacuole
- (b) Centriole
- (c) Nucleus
- (d) Endoplasmic reticulum

Correct Answer : (b) Centriole

98. Which of the following is the toxic compound of linseed

- (a) Arabinoxylane
- (b) Ricin
- (c) Scopoletin
- (d) Linamarin

Correct Answer : (d) Linamarin

99. Which of the following genera consists of endospore forming bacteria

- (a) Bacillus

- (b) Streptococcus
- (c) Saccharomyces
- (d) Escherichia

Correct Answer : (a) Bacillus

100. Which of the following types of metabolism do drugs with a high extraction ratio undergo to a significant extent

- (a) first-pass
- (b) zero-order
- (c) intraluminal
- (d) nonlinear

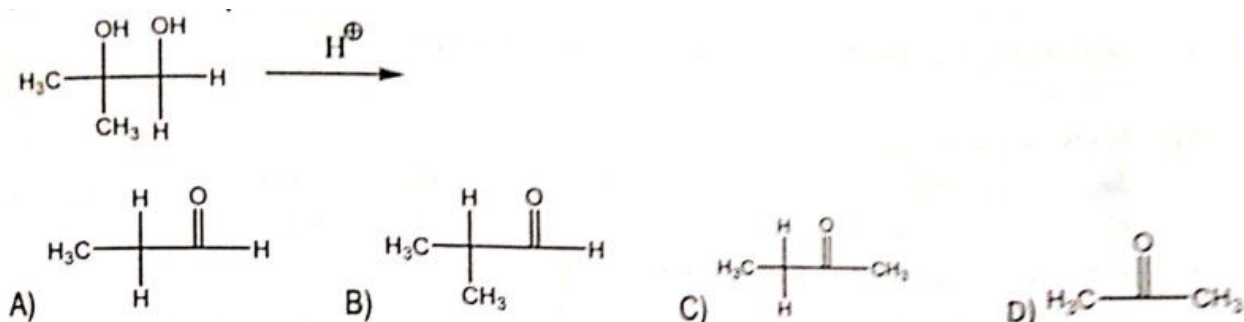
Correct Answer : (a) first-pass

101. The liver receives blood supply from the GIT via the

- (a) portal artery
- (b) portal vein
- (c) hepatic artery
- (d) hepatic vein

Correct Answer : (b) portal vein

102. The given 1,2-diol undergoes the pinacol pinacolone rearrangement. What will be the structure of the product



Correct Answer : (a) A

103. The resolution of microscope can be improved by

- (a) Use of light with shorter wavelength

- (b) Increasing refractive index of imaging medium
- (c) High numerical aperture
- (d) All of the above

Correct Answer : (d) All of the above

104. First plant to be genetically modified was

- (a) Tobacco
- (b) Rice
- (c) Cotton
- (d) Arabidopsis thaliana

Correct Answer : (a) Tobacco

105. A regulatory body of Japan is

- (a) PMDA
- (b) EMA
- (c) TGA
- (d) Medsafe

Correct Answer : (a) PMDA

106. Adverse Drug Experience as Defined by Regulation (21 CFR 314.80) are reported to Division of

- (a) Pharmacovigilance
- (b) Epidemiology
- (c) Medication Error Prevention & Analysis
- (d) Risk Management

Correct Answer : (a) Pharmacovigilance

107. IPP and DMAPP condense to produce ——— precursor to all terpenes and terpenoids

- (a) Methylerythritol phosphate
- (b) Farnesyl pyrophosphate
- (c) HMG COA

(d) Geranyl pyrophosphate

Correct Answer : (d) Geranyl pyrophosphate

108. The synonym of ashwagandha is

(a) Winter cherry

(b) Muskroot

(c) Pashanabhedi

(d) Indian pennywort

Correct Answer : (a) Winter cherry

109. Except glucuronidation enzyme, most of the enzymes involved in phase II reactions are mainly located in

(a) Cytosol

(b) Microsomes

(c) Golgi bodies

(d) Lysosomes

Correct Answer : (a) Cytosol

110. Heckel's pot is constructed to study ——— of a material

(a) Flowability

(b) Solubility

(c) Compactability

(d) Sustainability

Correct Answer : (c) Compactability

111. Hallucinating agents are also called as

(a) Thymoleptic

(b) Analeptic

(c) Proleptic

(d) Neuroleptics

Correct Answer : (b) Analeptic

112. Which of the following is associated with pseudogout

- (a) Deposition of calcium pyrophosphate in large joints
- (b) High uric acid levels
- (c) Deposition of uric acid in small joints
- (d) Lack of response to colchicines

Correct Answer : (a) Deposition of calcium pyrophosphate in large joints

113. Where does glycolysis occur in the cell

- (a) Cell membrane
- (b) Nucleus
- (c) Cytoplasm
- (d) Mitochondria

Correct Answer : (c) Cytoplasm

114. Which one of the following compounds does not absorb light in the UV/visible spectrum

- (a) Aspirin
- (b) Paracetamol
- (c) Chloral hydrate
- (d) Phenobarbitone

Correct Answer : (c) Chloral hydrate

115. Microbial insecticide is

- (a) *Bacillus pumilus*
- (b) *Bacillus thuringiensis*
- (c) *Bacillus cereus*
- (d) *Bacillus anthracis*

Correct Answer : (b) *Bacillus thuringiensis*

116. Which statement is true about polarography

- (a) The diffusion current is caused by solution stirring
- (b) The addition of supporting electrolytes is necessary for a migration current
- (c) The diffusion current is proportional to the square root of the concentration of the electroactive species
- (d) The magnitude of the diffusion current is proportional to concentration of electroactive species

Correct Answer : (d) The magnitude of the diffusion current is proportional to concentration of electroactive species

117. Whiskering is the problem seen in tablets when punches used are

- (a) Convex
- (b) Concave
- (c) Flat
- (d) Roughened on surfaces

Correct Answer : (b) Concave

118. Radio waves have

- (a) Frequencies 30 Hz to 300 GHz
- (b) Wavelength 1 mm to 10,000 km
- (c) Both A and B
- (d) Neither A nor B

Correct Answer : (c) Both A and B

119. Which country has won FIFA for five times

- (a) Germany
- (b) Uruguay
- (c) Brazil
- (d) Argentina

Correct Answer : (c) Brazil

120. Which of the following is not a prokaryotic cloning vehicle

- (a) Escherichia coli

- (b) *Bacillus subtilis*
- (c) *Agrobacterium tumefaciens*
- (d) *Saccharomyces cerevisiae*

Correct Answer : (d) *Saccharomyces cerevisiae*

121. The 'Head space' volume kept in the aerobic reactor ideally is ————% of reactor volume

- (a) 10-15
- (b) 40-50
- (c) 20-25
- (d) 10

Correct Answer : (c) 20-25

122. Carrageenan is composed of repeating units of

- (a) Galactose
- (b) Glucose
- (c) Glucose and galactose
- (d) Mannose

Correct Answer : (a) Galactose

123. Which of the following would not be a mobile phase for reversed phase liquid chromatography <https://www.pyqonline.com>

- (a) Water
- (b) Acetonitrile
- (c) Methanol
- (d) Hexane

Correct Answer : (d) Hexane

124. NiceProt is

- (a) Protein sequence database
- (b) Derived Protein database
- (c) Protein sequence view

(d) Nucleotide sequence view

Correct Answer : (c) Protein sequence view

125. SMILES is used in writing chemical structure. It is

- (a) simplified molecular-input line-entry system
- (b) Supporting molecular image like-entry system
- (c) Simplified Medical International Ligand Equivalent System
- (d) textual identifier for chemical substances

Correct Answer : (a) simplified molecular-input line-entry system

126. All the following viruses have reverse transcriptase except

- (a) Human immunodeficiency virus
- (b) Hepatitis B
- (c) Cytomegalovirus
- (d) Human T-cell leukemia virus type 1

Correct Answer : (c) Cytomegalovirus

127. Which one of the following is most acidic

- (a) o-hydroxy benzoic acid
- (b) m-hydroxy benzoic acid
- (c) p-hydroxy benzoic acid
- (d) p-toullic acid

Correct Answer : (a) o-hydroxy benzoic acid

128. Volini® is product of

- (a) Sun Pharma
- (b) Cadilla
- (c) Ranbaxy
- (d) Novartis India

Correct Answer : (c) Ranbaxy

129. Relaxing the restrictions and controls imposed on Business and industry means

- (a) Liberalisation
- (b) Privatisation
- (c) Globalisation
- (d) None of the above

Correct Answer : (a) Liberalisation

130. Consumer protection in India is ensured by

- (a) Consumer protection Act, A. 1946
- (b) Consumer protection Act, 1986
- (c) Consumer protection Act, 1990
- (d) Consumer protection Act, 1968

Correct Answer : (b) Consumer protection Act, 1986

131. Which of the following bonds requires more energy to stretch

- (a) C-H (alkyl)
- (b) C-H (aromatic)
- (c) C=O (ester)
- (d) O-H (alcohol)

Correct Answer : (d) O-H (alcohol)

132. If you smuggle goods into the country, they may be _____ by the customs authority

- (a) possessed
- (b) punished
- (c) confiscated
- (d) fined

Correct Answer : (c) confiscated

133. Write the letter which succeeds the letter which is midway between G and W

- (a) P
- (b) N
- (c) O
- (d) Q

Correct Answer : (b) N

134. Find the wrong number in the series: 7, 28, 63, 124, 215, 342, 511

- (a) 28
- (b) 124
- (c) 215
- (d) 342

Correct Answer : (a) 28

135. Aprecia Pharmaceuticals' use of for Spritam®, is the first FDA approved formulation obtained by

- (a) Zydis technology (orally dissolving tablet)
- (b) Artificial intelligence
- (c) ZipDose technology (3-D printing)
- (d) Carbon nanotube use

Correct Answer : (c) ZipDose technology (3-D printing)

136. Urate transporter inhibitor used as, an antigout drug is

- (a) Lesinurad
- (b) Allopurinol
- (c) Febuxostat
- (d) Colchicine

Correct Answer : (a) Lesinurad

137. Antonym for mountain is

- (a) Mound
- (b) Hummock

(c) Peak

(d) Valley

Correct Answer : (d) Valley

138. The molecular formula of cholesterol is

(a) $C_{29}H_{48}O$

(b) $C_{28}H_{44}O$

(c) $C_{27}H_{46}O$

(d) $C_{19}H_{28}O_2$

Correct Answer : (c) $C_{27}H_{46}O$

139. Linezolid is

(a) Oxazolidinone

(b) Thiazolidinedione

(c) Macrolide

(d) Lincosamide

Correct Answer : (a) Oxazolidinone

140. India won international Hockey World Cup for the first time in

(a) 1948

(b) 1971

(c) 1973

(d) 1975

Correct Answer : (d) 1975

141. Restriction endonucleases enzymes used most in rDNA technology is of

(a) Type I

(b) Type II

(c) Type III

(d) Type IV

Correct Answer : (b) Type II

142. A standard HEPA filter must at least 99.95% or 99.97% of particles whose diameter is

- (a) equal to $0.3\text{ }\mu\text{m}$
- (b) less than $0.3\text{ }\mu\text{m}$
- (c) more than $0.3\text{ }\mu\text{m}$
- (d) All of the above

Correct Answer : (a) equal to $0.3\text{ }\mu\text{m}$

143. The angle between the minute hand and the hour hand of a clock when the time is 4.20 is

- (a) 10°
- (b) 5°
- (c) 1°
- (d) 0°

Correct Answer : (a) 10°

144. A new gene produced by combination of portions of two or more coding sequences of different genes is

- (a) Chimeric genes
- (b) Fusion genes
- (c) recombinant genes
- (d) cryptogene

Correct Answer : (a) Chimeric genes

145. Quantity of NaOH needed to make 100 ml solution of 0.5 M strength is

- (a) 0.5 gm
- (b) 1 g
- (c) 2 gm
- (d) 4 gm

Correct Answer : (c) 2 gm

146. Which one of the following enzymes is present in the bacteriophage

- (a) Transcriptase
- (b) Lysozyme
- (c) Protease
- (d) Urease

Correct Answer : (b) Lysozyme

147. A is two years older than B who is twice as old as C. If the total ages of A, B and C be 27, what is the age of B

- (a) 8 years
- (b) 10 years
- (c) 12 years
- (d) 14 years

Correct Answer : (b) 10 years

148. Which of the following polymer is used as ion exchange

- (a) Cross-linked polystyrene
- (b) Cross-linked polymethylacrylate
- (c) Cross-linked dextran
- (d) Cross-linked agarose

Correct Answer : (a) Cross-linked polystyrene

149. DPCO is implemented by

- (a) NPPA
- (b) CDSCO
- (c) DCGI
- (d) NLEM

Correct Answer : (a) NPPA

150. Kalmegh is bitter in taste due to

- (a) Forskolin

- (b) Momordicin
- (c) Withanolide
- (d) Andrographolide

Correct Answer : (d) Andrographolide

151. Separation of ions in mass spectrometer take place on the basis of which of the following

- (a) Mass
- (b) Charge
- (c) Mass to charge ratio
- (d) Molecular weight

Correct Answer : (c) Mass to charge ratio

152. Which intermediate is formed in Wolff's reaction

- (a) Carbene
- (b) Ketene
- (c) Carbocation
- (d) Carbanion

Correct Answer : (b) Ketene

153. The correct order of different types of energies is

- A) $E_{el} \gg E_{vb} \gg E_{rot} \gg E_{tr}$
- B) $E_{el} \gg E_{rot} \gg E_{vb} \gg E_{tr}$
- C) $E_{el} \gg E_{vb} \gg E_{tr} \gg E_{rot}$
- D) $E_{tr} \gg E_{vb} \gg E_{rot} \gg E_{el}$

Correct Answer : (a) $E_{el} \gg E_{vb} \gg E_{rot} \gg E_{tr}$

154. Fuming sulphuric acid is the solution of ——— % SO_3 in conc. H_2SO_4

- (a) 10
- (b) 9
- (c) 8

(d) 7

Correct Answer : (d) 7

155. Which of the following reactions are favoured by polar aprotic solvent

- (a) SN1 reactions
- (b) SN2 reactions
- (c) Both SN1 and SN2 reactions
- (d) None of the mentioned

Correct Answer : (b) SN2 reactions

156. Reaction of alcohol with SOCl_2 is _____.

- (a) SN1
- (b) SN2
- (c) $\text{S}_{\text{N}}\text{Ar}$
- (d) $\text{S}_{\text{N}}\text{i}$

Correct Answer : (d) $\text{S}_{\text{N}}\text{i}$

157. The energy associated with infra red is enough to make

- (a) electronic transitions
- (b) vibrational and rotational transitions
- (c) a full separation of the electron in the outer shell
- (d) an electron move from an inner orbital

Correct Answer : (b) vibrational and rotational transitions

158. Which messenger molecules are derived from arachidonic acid

- (a) Eicosanoids
- (b) Terpenoids
- (c) Corticoids
- (d) Steroids

Correct Answer : (a) Eicosanoids

159. Which crucial feature of a penicillin is involved in its mechanism of action

- (a) Carboxylic acid
- (b) β -lactam ring
- (c) Acyl side chain
- (d) Thiazolidine ring

Correct Answer : (b) β -lactam ring

160. Which of the following is a long-acting insulin analogue

- (a) Lispro
- (b) Insulin aspart
- (c) Glulisine
- (d) Glargine

Correct Answer : (d) Glargine

161. Which of the following statement is false for osmotic pumps

- (a) The pump has three concentric circle
- (b) The innermost is the drug reservoir
- (c) The drug is contained a permeable polyester bag
- (d) Outer most rigid rate controlling semipermeable membrane

Correct Answer : (c) The drug is contained a permeable polyester bag

162. If the number of protons or neutrons is even the spin of the nucleus will be which of the following

- (a) Integral spin
- (b) Half integral spin
- (c) Zero spin
- (d) Positive spin

Correct Answer : (c) Zero spin

163. Bancroft's rule is applied for which formulation

- (a) Suspension
- (b) Emulsion
- (c) Solution
- (d) Micelles

Correct Answer : (b) Emulsion

164. If the Zeta potential of a colloidal dispersion is 0 to ± 5 mV, that colloid shows

- (a) Rapid coagulation or flocculation
- (b) Incipient instability
- (c) Moderate stability
- (d) Good stability

Correct Answer : (a) Rapid coagulation or flocculation

165. The term anomers of glucose refers to

- (a) isomers of glucose that differ in configuration at carbons one and four (C-1 and C-4)
- (b) a mixture of D-glucose and L-glucose
- (c) enantiomers of glucose
- (d) isomers of glucose that differ in configuration at carbons one (C-1)

Correct Answer : (d) isomers of glucose that differ in configuration at carbons one (C-1)

166. The first EMR (exclusive marketing right) was granted in India that created controversy was to

- (a) Cipla
- (b) Ranbaxy
- (c) Novartis
- (d) Sun Pharma

Correct Answer : (d) Sun Pharma

167. Dibenzazepine ring is present in

- (a) Cyproheptadine
- (b) Imipramine

(c) Amitriptyline

(d) Azatadine

Correct Answer : (b) Imipramine

168. Which of the following is a weak anesthetic agent to produce anesthesia by itself

(a) Nitrous oxide

(b) Chloroform

(c) Ketamine

(d) Ether

Correct Answer : (a) Nitrous oxide

169. Oseltamivir (Tamiflu) and Zanamivir are structural mimics of

(a) Sialic acid

(b) Teichoic acid

(c) Salicylic acid

(d) Mucic acid

Correct Answer : (a) Sialic acid

170. What is the indication of flow property

(a) Bridging

(b) Arching

(c) Angle of repose

(d) Rat holing

Correct Answer : (c) Angle of repose

171. Which ester hydrolysis mechanism are not observed

(a) $A_{AC}2$ and $A_{AL}1$

(b) $B_{AC}2$ $B_{AL}1$

(c) $A_{AC}1$ and $B_{AL}2$

(d) $A_{AL}2$ and $B_{AC}1$

Correct Answer : (d) A_{AL}2 and B_{AC}1

172. ————— is an excellent 'green' solvent as well as a greenhouse gas

- (a) Methanol
- (b) CFCs
- (c) Ethyl acetate
- (d) Carbon Dioxide

Correct Answer : (d) Carbon Dioxide

173. Drugs of choice for treatment of cerebral malaria are

- (a) Chloroquine, mefloquin
- (b) Pyrimethamine, sulphamethoxazole
- (c) Artemesin derivatives, quinine
- (d) Atovaquone, tetracycline

Correct Answer : (c) Artemesin derivatives, quinine

174. Meaning of mitigate is

- (a) Denote
- (b) Dedicate
- (c) Divulge
- (d) Diminish

Correct Answer : (d) Diminish

175. Methyl isocyanate gas tragedy occurred in

- (a) Chernobyl
- (b) Bhopal
- (c) Fukushima
- (d) Merrimack Valley

Correct Answer : (b) Bhopal

176. Find the number whose square root is twice of its cubic root

- (a) 4
- (b) 16
- (c) 64
- (d) 128

Correct Answer : (c) 64

177. 2H-chromen-2-one is

- (a) Chalcone
- (b) Aurone
- (c) Coumarin
- (d) Psoralen

Correct Answer : (c) Coumarin

178. Golden rice is fortified with ——— by means of genetic modification

- (a) Vitamin D
- (b) Vitamin A
- (c) Vitamin C
- (d) Vitamin B5

Correct Answer : (b) Vitamin A

179. ——— award is bestowed as the highest recognition for medical practitioners in India

- (a) Kalinga
- (b) B.C.Roy
- (c) Ramanujan
- (d) Shantiswarup Bhatnagar

Correct Answer : (b) B.C.Roy

180. Which of the following is used in electron microscope

- (a) Beam of LASER

- (b) Glass optical system
- (c) Electron beams and magnetic fields
- (d) None of the above

Correct Answer : (c) Electron beams and magnetic fields

181. All of the coenzymes listed participate in electron transfer EXCEPT

- (a) FAD, NAD⁺
- (b) Biotin
- (c) Lipoic acid
- (d) Vitamin C

Correct Answer : (b) Biotin

182. Global warming is due to increase of

- (a) Methane in atmosphere
- (b) CO₂ in atmosphere
- (c) Water vapour
- (d) Methane and CO₂

Correct Answer : (d) Methane and CO₂

183. The p53 protein normally promotes

- (a) Tumor formation
- (b) DNA replication
- (c) Cell division
- (d) Apoptosis

Correct Answer : (d) Apoptosis

184. Given below are words, three of which convey same meaning, and one does not. Find it

- (a) Convulse
- (b) Soothe
- (c) Compose

(d) Assuage

Correct Answer : (a) Convulse

185. Which of the following parameters is the same for molecules of all gases at a given temperature

(a) Mass

(b) Momentum

(c) Speed

(d) Kinetic energy

Correct Answer : (d) Kinetic energy

186. Gamma glutamyl cysteinyl glycine is commonly known as

(a) Glucagon

(b) Bradykinin

(c) Glutathione

(d) Incretin

Correct Answer : (c) Glutathione

187. Isosteric replacement of sulfur with carbon in cephalexine gives

(a) Loracarbef

(b) Meprophenem

(c) Aztreonam

(d) Cefotetan

Correct Answer : (a) Loracarbef

188. Which is related to share market

(a) NASSCOM

(b) NASDAQ

(c) NASDOC

(d) NASA

Correct Answer : (b) NASDAQ

189. Which one is not soft/ambient ionization technique

- (a) Electron ionization (EI)
- (b) Fast atom bombardment (FAB)
- (c) Chemical ionization (CI)
- (d) Atmospheric-pressure chemical ionization (APCI)

Correct Answer : (a) Electron ionization (EI)

190. A person travels 6km towards west, then travels 5km towards north, then finally travels 6km towards west. Where is he with respect to his starting position? <https://www.pyqonline.com>

- (a) 13km east
- (b) 13km northeast
- (c) 13km northwest
- (d) 13km west

Correct Answer : (c) 13km northwest

191. Which of the following diagram/sets indicate the relation between women, mothers and parents?



Correct Answer : (a) A

192. Interleukins are mainly synthesized by _____

- (a) Erythrocytes
- (b) Lymphocytes
- (c) Granulocytes
- (d) Thrombocytes

Correct Answer : (b) Lymphocytes

193. NLO: RPS ::?: ZXA

- (a) VUW
- (b) VTR
- (c) VTW
- (d) TRP

Correct Answer : (c) VTW

194. A metabolic pathway that is involved in both energy production and biosynthesis is

- (a) Anaplerotic
- (b) Amphibolic
- (c) Duplibolic
- (d) Cataplerotic

Correct Answer : (b) Amphibolic

195. If there is less than a ——— difference in the minimum lethal dose and minimum effective dose blood, the use of drug requires careful patient monitoring and dose adjustment

- (a) 2 fold
- (b) 3 fold
- (c) 4 fold
- (d) None of the above

Correct Answer : (a) 2 fold

196. Beta-lactam antibiotics are most likely to degrade as a result of

- (a) Solvolysis
- (b) Oxidation
- (c) Photolysis
- (d) None of the above

Correct Answer : (a) Solvolysis

197. Which of the following has 21 carbons

- (a) Cholesterol
- (b) Pregnenolone

- (c) Estrone
- (d) Testosterone

Correct Answer : (b) Pregnenolone

198. Which enzyme converts CAMP to AMP

- (a) Adenylate cyclase
- (b) ATPase
- (c) Phosphodiesterase
- (d) Adenylate kinase

Correct Answer : (c) Phosphodiesterase

199. Liposomal drug delivery is developed for which antifungal drug

- (a) Griseofulvin
- (b) Flucytosine
- (c) Itraconazole
- (d) Amphotericin B

Correct Answer : (d) Amphotericin B

200. To ensure availability of the medicines at appropriate prices, DPCO was introduced in

- (a) 1985
- (b) 1995
- (c) 2005
- (d) 2015

Correct Answer : (b) 1995