Sl. No. : [redacted]

JAPH/18

Register Number | | | | | | | | | |

2018

PHARMACY

(Degree Standard)

Time Allowed : 3 Hours] **[Maximum Marks : 300**

Read the following instructions carefully before you begin to answer the questions.

IMPORTANT INSTRUCTIONS

1. The applicant will be supplied with Question Booklet 15 minutes before commencement of the examination.
2. This Question Booklet contains 200 questions. Prior to attempting to answer the candidates are requested to check whether all the questions are there in series and ensure there are no blank pages in the question booklet. **In case any defect in the Question Paper is noticed it shall be reported to the Invigilator within first 10 minutes and get it replaced with a complete Question Booklet. If any defect is noticed in the Question Booklet after the commencement of examination it will not be replaced.**
3. Answer all questions. All questions carry equal marks.
4. You must write your Register Number in the space provided on the top right side of this page. Do not write anything else on the Question Booklet.
5. An answer sheet will be supplied to you, separately by the Room Invigilator to mark the answers.
6. You will also encode your Question Booklet Number with Blue or Black ink Ball point pen in the space provided on the side 2 of the Answer Sheet. If you do not encode properly or fail to encode the above information, action will be taken as per commission's notification.
7. Each question comprises *four* responses (A), (B), (C) and (D). You are to select ONLY ONE correct response and mark in your Answer Sheet. In case you feel that there are more than one correct response, mark the response which you consider the best. In any case, choose ONLY ONE response for each question. Your total marks will depend on the number of correct responses marked by you in the Answer Sheet.
8. In the Answer Sheet there are **four** circles Ⓐ, Ⓑ, Ⓒ and Ⓓ against each question. To answer the questions you are to mark with Blue or Black ink Ball point pen ONLY ONE circle of your choice for each question. Select one response for each question in the Question Booklet and mark in the Answer Sheet. If you mark more than one answer for one question, the answer will be treated as wrong. *e.g.* If for any item, Ⓑ is the correct answer, you have to mark as follows :

   Ⓐ ● Ⓒ Ⓓ

9. You should not remove or tear off any sheet from this Question Booklet. You are not allowed to take this Question Booklet and the Answer Sheet out of the Examination Hall during the time of examination. After the examination is concluded, you must hand over your Answer Sheet to the Invigilator. You are allowed to take the Question Booklet with you only after the Examination is over.
10. The sheet before the last page of the Question Booklet can be used for Rough Work.
11. Do not tick-mark or mark the answers in the Question Booklet.
12. Applicants have to write and shade the total number of answer fields left blank on the boxes provided at side 2 of OMR Answer Sheet. An extra time of 5 minutes will be given to specify the number of answer fields left blank.
13. Failure to comply with any of the above instructions will render you liable to such action or penalty as the Commission may decide at their discretion.

SEAL

◆

SPACE FOR ROUGH WORK

1. The first order kinetics the time required to achieve steady state levels can be predicted from which of the following parameter is helpful in determining the time required to achieve steady state if dry follows first order kinetics

(A) Half life
(B) Maximum loading dose
(C) Clearance
(D) Volume of distribution

2. In hepatic metabolism, phase II reaction is which of the following is a phase – II reaction in drug biotransformation?

(A) Oxidation
(B) Reduction
(C) Glucuronide conjugation
(D) Hydrolysis

3. Which of the following pharmacokinetics parameter is useful in calculation of extent of absorption?

(A) C_{max}
(B) Clearance
(C) T_{max}
(D) Area Under the Curve (AUC)

4. DPT (Tripple antigen) is given for prevention of

(A) Diptheria, Pertussis and Tetanus
(B) Diptheria, Pneumonia and Tetanus
(C) Diptheria Pneumonia and Tuberculosis
(D) Diptheria, Pertussis and Tuberculosis

5. Identify the endotoxin producing bacteria among the following, which of the following is endotoxin producing bacteria?

(A) Clostridium botulium
(B) Commebacterium diptheriae,
(C) Salmonella typhi
(D) Clostridium Tetani

6. Which animal is commonly used for preparation of antitoxin?

(A) Rabbit
(B) Horse
(C) Rat
(D) Mice

7. The potency of diptheria antitoxin is determined by comparing the dose necessary to protect the experimental animals against the erythrogenic effects of the standard preparation of diptheria antitoxin to give the same protection. Which of the following animals are specified for their test?

(A) Guinea pigs or rabbits
(B) Beagle dogs or cats
(C) Albino mice or wistar rats
(D) Hamsters or frogs

8. What is the recommended antimicrobial preservative for test toxin refined for biological assay of diptheria antitoxin?

(A) Toluene
(B) Sodium Benzoate
(C) Salt
(D) Sugar

9. In the tetanus vaccine (adsorbed) the potency of tetanus component can be determined by injecting sub cutaneously into a Guinea pigs. The weight of the Guinea pigs should be

(A) 25 g and 35 g
(B) 250 g and 350 g
(C) 200 g – 225 g
(D) 2500 g and 3500 g

10. Two monochromators are essential for

(A) Colourimetry
(B) Spectro photometry
(C) Spectro fluorimetry
(D) Flame photometry

11. Which of the following is the recommended diluent used in the determination of test dose of toxin used for biological assay of diptheria antitoxin?

(A) Sugar solution
(B) Ringer solution
(C) Saline solution
(D) Tyrole solution

12. In a pharma industry, pipes are used for transportation of

(A) Solids
(B) Semi-solids
(C) Liquids and steam
(D) Electricity

13. Glass used for preparation of vials and transfusion bottles is

(A) Type II soda lime glass
(B) Type III soda lime glass
(C) Borosilicate glass
(D) Neutral glass

14. Lipophilicity of a drug can be measured by means of its

(A) Oil/water partition coefficient
(B) Dissociation constant
(C) Melting point
(D) Refractive index

15. Determination of dissolution rate of drug is inclusive of determination of

(A) Packing properties of a drug
(B) Thermodynamic properties of a drug
(C) Spectroscopic character of a drug
(D) Kinetic properties of a drug

16. The following materials can be used as preservative except

(A) Benzoic acid
(B) Oxalic acid
(C) Quine Mercuric Nitrate
(D) Cetrimide

17. How many times sachem is sweeter than sucrose

(A) 125
(B) 450
(C) 2000
(D) 4000

18. X-ray diffraction technique can be used to determine

(A) Crystalline property of a drug
(B) Particle size of a drug
(C) pH of a drug
(D) Dissociation constant of a drug

19. Which one among the following additives is not included in manufacture of large volume parentals

(A) Tunicity agents
(B) Solubilisers
(C) Vehicle
(D) Antimicrobial compounds

20. Propellants are important component of

(A) Ocusert
(B) Osmotic pump
(C) Aerosols
(D) Sustained release tablets

21. Water proof characteristic of nail lacquer is achieved by incorporating

(A) Nitrocellulose
(B) Liquid paraffin
(C) Acetone
(D) Xylene

22. A true alkaloid has a nitrogen atom as a part of

(A) Side chain
(B) Bound form
(C) Heterocyclic system
(D) Homocyclic system

23. Numerous trichomes, both covering and glandular are present in the powder of

(A) Senna leaves
(B) Vinea leaves
(C) Digitalis leaves
(D) Eucalyptus leaves

24. Hydrocolloidal polysaccharides are present it

(A) Indian Tragacanth
(B) Isabgol
(C) Guar gum
(D) Pectin

25. Atropine, hyoscyamine and hyosine are distinguished from other alkaloids by

(A) Mayer's test
(B) Wagner's test
(C) Hager's test
(D) Vitalis test

26. Rheumatism root is

(A) Rauwolfia root
(B) Ipecac root
(C) Dioscorea
(D) Liquorice

27. Which of the following is NOT a plant growth inhibitor?

(A) Ethylene
(B) Absiccic acid
(C) Daminozide
(D) IAA

28. The plant growth hormones Cytokinins belong to which of the following class?

(A) Guanine
(B) Thyamine
(C) Purine
(D) Cytidine

29. Which of the following is a naturally occurring auxin?

(A) α – Napthyl acetic acid
(B) 2, 4 – Dichlorophenoxy acetic acid
(C) Indole –3 – butyric acid
(D) Indole acetic acid

30. The entire plant catharanthus rosens contain more

(A) Terpenoids
(B) Flavonoids
(C) Glycosides
(D) Alkaloids

31. All the particles will pass through a No. 180 sieve are,
(A) Coarse powder
(B) Moderately coarse
(C) Fine powder
(D) Moderately fine

32. Alkaloid derived from ornithine
(A) Anabasine
(B) Seopalamine
(C) Papaverine
(D) Ephedrine

33. Which of the following test is used specifically for identification of keto sugars?
(A) Benedict's Test
(B) Seliwanoff's Test
(C) Fehling's Test
(D) Molisch Test

34. Which is the precursor of tryptophan synthesis?
(A) Anthranalic acid
(B) Phenyl pyruvic acid
(C) Hydroxy phenyl pyruvic acid
(D) Meconic acid

35. What is the starting compound of shikimic acid pathway?
(A) Chorismic acid
(B) Phenyl pyruvic acid
(C) Phosphoenol pyruvic acid
(D) Citric acid

36. Example for sulphur containing amino acids
(A) Tryptophan
(B) Cysteine
(C) Procine
(D) Histidine

37. Primary test for amino acids
(A) Barfoed's test
(B) Mayer's test
(C) Ninhydrin test
(D) Bontrager's test

38. Identify the FALSE statement with regard to air lock as per WHO guidelines on GMP

(A) An enclosed space with two or more doors between rooms

(B) It is necessary to separate rooms of different classes of cleanliness

(C) It is meant for the purpose of controlling air-flow between rooms

(D) It is necessary to separate rooms of same class of cleanliness

39. The status of starting or packaging materials, bulk or finished products ISOLATED physically while a decision is awaited on their release/rejection/reprocessing is

(A) Storage

(B) Reconcilation

(C) Quarantine

(D) Consignment

40. WHO guideline on GMP for herbal medicines do NOT include which of the following aspect explicitly?

(A) Sanitation and Hygiene

(B) Training

(C) Quality control

(D) Ethics

41. Which of the following is an intermediate in the biosynthesis of (–) hyoscyamine

(A) N-Methyl– Δ^1–pyrrolinium cation

(B) Methylecgonine

(C) Benzoyl-CoA

(D) Cinnamic acid

42. Which of the following contributes the C_4N building block as heterocyclic ring to Tropane alkaloids

(A) L-Phenylalanine

(B) L-Lysine

(C) L-Leucine

(D) L-Ornithine

43. The License issued for whole sale of schedule X drugs in form

(A) 20 G

(B) 28 A

(C) 20 F

(D) 29 F

44. The chairman of the drugs technical advisory board is
(A) Director General of Health Services
(B) Drugs Controller General India
(C) President Medical Council of India
(D) President Pharmacy Council of India

45. "Use the solution within one month after opening the container" is the labelling requirement for
(A) Oral liquids
(B) Opthalmic drops
(C) Nasal drops
(D) Antiseptic solutions

46. The functions of central drugs laboratory in respect to testing of condoms is to be carried out at
(A) Central Drugs Testing Laboratory, Chennai
(B) National Institute of Biologicals, NOIDA
(C) Central Research Institute, Kasauli
(D) Central Drugs Testing Laboratory, Thane

47. The minimum space requirement for granting a wholesale License for drugs is
(A) Ten square meter
(B) Fifteen square meter
(C) Twenty square meter
(D) Twenty five square meter

48. The duration of manufacturing Licence of Drugs is
(A) Three years from Date of issue
(B) Five years from Date of issue
(C) Six years from Date of issue
(D) No fixed limit if licence fees are paid

49. Molecules found in all plants and necessary for the life of the plants are called as

(A) All metabolites
(B) Primary metabolite
(C) Secondary metabolite
(D) Essential metabolites

50. Pharmacy council of India is reconstituted once in

(A) 6 years
(B) 5 years
(C) 2 years
(D) 3 years

51. The Central drugs laboratory is located at

(A) Chennai
(B) Delhi
(C) Mumbai
(D) Kolkata

52. A greenish colour is developed when a solution of cholesterol in chloroform is treated with concentrated sulphuric acid and acetic anhydride – Name the reaction

(A) Barford
(B) Benedicts
(C) Salkowshi
(D) Liebermann – Burchard

53. The configuration of Ketoxime is determined by

(A) Ponndrof reduction
(B) Beckmann rearrangement
(C) Schmidt rearrangement
(D) Darzen's reaction

54. Vitamin E group is known as

(A) Calciferol
(B) Tocopherols
(C) Ergocalciferol
(D) Pyridoxine

55. ———— is the number of mg. of potassium hydroxide required to neutralize the acid formed by the hydrolysis of 1 g. of the acetylated substance.

(A) Acid value
(B) Saponification value
(C) Acetyl value
(D) Iodine value

56. ———— is the neutral and chemically inert solvent used in non-aqueous titrations.

(A) Protogenic solvent
(B) Protophilic solvent
(C) Amphiprotic solvent
(D) Aprotic solvent

57. Which of the following method is used to measure the surface tension?

(A) The drop weight method
(B) Ostwald's viscometer
(C) Rast method
(D) The Barometric method

58. Which of the following alkaloids contain Indole nucleus?

(A) Vincristine
(B) Morphine
(C) Ephedrine
(D) Quinine

59. Acid catalysed or enzymic hydrolysis of glycosides yields

(A) Sugar and R–OH
(B) Non Sugar and R–COOH
(C) Sugar and R–COOH
(D) Non Sugar and R–CHO

60. Which of the following compounds is the hormone?

(A) Nor adrenaline
(B) Riboflavine
(C) Morphine
(D) Penicillin

61. Deficiency of Biotin leads to

(A) Dermatitis

(B) Anemia

(C) Pellagra

(D) Beriberi

62. Benzylic acid ester on condensation with urea in presence of sodium ethoxide gives,

(A) Ethotoin

(B) Phenytoin

(C) Mephenytoin

(D) Primidone

63. This compound is a good sedative and exhibits no hypnotic action

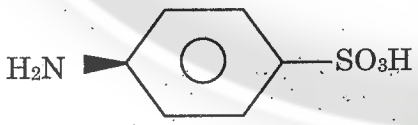
(A) Thiopentone sodium

(B) Pheno barbitol

(C) Potassium bromide

(D) Hexo barbital

64. Structure of the following compound is



(A) Acetanilide

(B) Sulfanilamide

(C) Sulphanilic acid

(D) Para amino benzene

65. The basis for the antibacterial action of β-lactams is that these drugs become bound to what portion of the cell wall?

(A) Penta glycine

(B) Mycolic acid

(C) D-alanine-D-alanine cross linked

(D) Transamidase (Trans peptidase)

66. Which of the following ring system is present in penicillins and cephalosporins?

(A) β-lactone

(B) β-lactam

(C) 3-Azyl cyclobutan-4-one

(D) 2-Aza cyclobutan-4-one

67. Which form of enantiomer of propranolol is active?

(A) S-Isomer

(B) Cis-Isomer

(C) R-Isomer

(D) Trans-Isomer

68. Which of the following Anti hypertensive drug is carbonic anhydrase inhibitor?

(A) Acetazolamide

(B) Chlorthiazide

(C) Amiloride

(D) Triamterene

69. Methicillin is ———————— penicillins.

(A) An acid resistant

(B) Penicillinase resistant

(C) Broad spectrum

(D) A natural

70. Isocratic pump is an important component of

(A) Potentiometer
(B) HPLC
(C) Polarograph
(D) Spectrophotometer

71. The process of changing the mobile phases solvent strength to enhance the separation of both early and late eluting solutes in HPLC is

(A) Temperature programming
(B) Isocratic elution
(C) Resolution
(D) Gradient elution

72. Which detector is used for detecting carbohydrates in HPLC systems?

(A) UV
(B) Fluorescence
(C) Refractive index
(D) Conductometric

73. How many 1H-NMR (PMR) signals the octane molecule will be giving?

(A) 4
(B) 5
(C) 2
(D) 3

74. Ferrous iron is oxidised to ferric state by potassium permanganate in

(A) basic solution
(B) acid solution
(C) neutral solution
(D) aqueous solution

75. Protophilic solvents are _____ in character.

(A) neutral
(B) acidic
(C) basic
(D) weakly acidic

76. In UV spectroscopy, the specific bonds as functional groups in a molecule responsible for the absorption of a particular wavelength of light is called as

(A) Chromophore
(B) Auxilaryphore
(C) Chromophene
(D) Lambda max

77. As electro magnetic radiation interacts with matter fluorescence occurs when emission of a photon from

(A) Singlet excited state to singlet ground state
(B) Triplet excited state to singlet ground state
(C) Doublet to singlet ground state
(D) Singlet to Triplet state

78. Pyridine is a weak base, when dissolved in acetic acid, the acetic acid exerts its _____ effect.

(A) levelling
(B) differentiating
(C) modifying
(D) exchanging

79. _____ analysis is a procedure for isolating and weighing an element or compound in as pure a pure as possible.

(A) spectrophotometric
(B) chromatographic
(C) complexometric
(D) gravimetric

80. Recommended reference material used for ^{13}C NMR is

(A) Tri methyl silane
(B) Tetra methyl silane
(C) Tri ethyl silane
(D) Tetra ethyl silane

81. The drug of choice for mushroom poisoning by Amanita muscaria is

(A) Adrenaline
(B) Atropine
(C) Ti Zanidine
(D) Carisoprodol

82. Assertion (A) : Donepezil is a cerebro selective anticholinesterase which is used in the treatment of Alzheimer's disease.

Reason (R) : Alzheimer's disease is a neurodegenerative disorder primarily affecting cholinergic neurons in the brain.

(A) Both (A) and (R) are true and (R) is the correct explanation of (A)
(B) Both (A) and (R) are true but (R) is not the correct explanation of (A)
(C) (A) is true but (R) is false
(D) (A) is false but (R) is true

83. Benzodiazenine antagonist is

(A) Ketamine
(B) Flumazenil
(C) Nalorphine
(D) Naloxone

84. Consider the following statements :

Assertion (A) : Milrinone is used in the treatment of congestive cardiac failure

Reason (R) : PDE 5 isoenzyme is specific for intracellular degradation of cAMP in heart and Milrinone is a PDE 5 inhibitor.

Choose the correct answer according to the scheme given below :

(A) Both (A) and (R) are true and (R) is the correct explanation for (A)
(B) Both (A) and (R) are true but (R) is not the correct explanation for (A)
(C) (A) is true but (R) is false
(D) (R) is true but (A) is false

85. The antihypertensive drug which is used topically for treatment of alopecia is

(A) Methyldopa
(B) Minoxidil
(C) Nifedipine
(D) Ramipril

86. Digoxin acts by

(A) Inhibiting H^+/K^+ ATPase
(B) Inhibiting Na^+/K^+ ATPase
(C) Stimulating Na^+/K^+ ATPase
(D) Stimulating H^+/K^+ ATPase

87. The drug which suppresses ventricular tachycardia due to digitalis toxicity is

(A) Disopyramide
(B) Lidocaine
(C) Propofenone
(D) Propranolol

88. The moderately effective osmotic diuretic is

(A) Furosemide
(B) Mannitol
(C) Bumetanide
(D) Chlorthalidone

89. The drug which competitively inhibits the union of para amino benzoic acid with pteridine residue to form dihydropteroic acid is

(A) sulphonamides
(B) pencillins
(C) trimethoprim
(D) norfloxacin

90. The microorganisms used as probiotic in diarrhea are the following except

(A) lactobacillus species
(B) enterococcus species
(C) streptococcus faecalis
(D) helicobacter pylori

91. The natural alkaloid which is a microtubule damaging agent is

(A) Ergotamine
(B) Vincristine
(C) Morphine
(D) Atropine

92. All the following drugs are penicillinase resistant except

(A) Procaine penicillin G
(B) Methicillin
(C) Nafcillin
(D) Cloxacillin

93. Chromosomal mutation of gene producing DNA gyrase leads to development of bacterial resistance to which of the following drugs?

(A) Norfloxacin
(B) Tetracycline
(C) Amoxacillin
(D) Cefprozil

94. The antimalarial drug which acts on the pre erythrocytic stage of P. vivax is

(A) chloroquine
(B) primaquine
(C) mefloquine
(D) quinine

95. The anticancer drug 5-Fluorouracil (5-FV) is a

(A) Folate antagonist
(B) Purine antagonist
(C) Pyrimidine antagonist
(D) Estrogen receptor antagonist

96. The Insulin receptor is a

(A) G-protein coupled receptor
(B) Nuclear receptor
(C) Tyrosine Kinase receptor
(D) Ion channel receptor

97. Human Immunoglobulin injection is sterilized by

(A) Filtration
(B) Autoclaving (Moist heat sterilisation)
(C) Dry heat sterilisation
(D) Gaseous sterilisation

98. Poly Vinyl Pyurolidine (PVP) is not used as plasma substitute because of its

(A) Carcinogenicity
(B) Teratogenicity
(C) Gastric irritation
(D) Skin irritation

99. The expiry time of fibrinogen solution (aqueous) is

(A) 1 day
(B) 1 hour
(C) 2 hours
(D) 3 hours

100. Choose the method for separation of Red Blood Corpuscles (RBCs) from human blood

(A) Filtration
(B) Sublimation
(C) Centrifugation
(D) Desiccation

101. Which of the following substance is not an Anticoagulant?

(A) Acid-citrate - Dextrose
(B) Acacia
(C) Heparin
(D) Dirodium ededate

102. Assuming K is the elimination rate constant, the biological half life of a drug (first order kinetic) is represented by

(A) $\frac{0.693}{K}$
(B) log K
(C) $\frac{1}{K}$
(D) $\frac{2.303}{K}$

103. Which of the following methods is not recommended for sterilization of eye drops (BPC)?

(A) Addition of chemical protectants

(B) Heating in an antoclave

(C) Maintaining at 98 to 100°C for 30°min

(D) Filtration

104. Dry heat sterilization is conducted at

(A) 100°C for 2 hours

(B) 121°C for 2 hours

(C) 160°C for 1 hour

(D) 180°C for 1 hour

105. The active immunity can be artificially stimulated by use of:

(A) Antitoxins

(B) Immunoglobulins

(C) Bacterial Toxins

(D) Vaccines

106. Diptheria and Tetanus vaccine belong to the class of:

(A) Live bacterial vaccines

(B) Toxoids

(C) Viral vaccines

(D) Oral vaccines

107. The substrate for virus propagation for oral poliomyelitis vaccine is

(A) Primary monkey kidney cells

(B) Duck embryo

(C) Chicken embryo

(D) Goat embryo

108. Which of the following substance will not stimulate an immune response unless combines with another molecule?

(A) Antibody

(B) Virus

(C) Miligen

(D) Hapten

109. The type of plant layout where machines doing various operations in a line is

(A) Product layout (B) Process layout

(C) Normal layout (D) Special layout

110. The following equipment are used to mixing of liquids except

(A) Propellor (B) Paddle

(C) Tripple roller mill (D) Turbine

111. Identify the factor that does not influence rate of evaporation

(A) Surface area of evaporator (B) Viscosity of solution

(C) Melting point of solids (D) Vapour pressure

112. Sieve number 120 corresponds / correlates with nominal mesh size of

(A) 150 μm (B) 125 μm

(C) 710 μm (D) 600 μm

113. Industrial safety refers to safety of

(A) Machines (B) Materials

(C) Men (D) Money

114. The following material are used for blister packing of tablets except

(A) Poly Vinyl Chloride (PVC) (B) Poly styrene

(C) Bakelite (D) Polypropylene

115. The following plastic container can be sterilised by autoclaving except

(A) Polypropylene (B) Polyamide

(C) Poly methyl methacrylate (PMMA) (D) Poly carbonate

116. HLB value of sodium Lauryl sulphate is

(A) 25
(B) 40
(C) 48
(D) 30

117. Sedimentation rate of suspension depends on following except

(A) Size of particles
(B) Density of particles
(C) Viscosity of medium
(D) pH of solvent

118. Calculate the strength of anhydrous dextrose needed to produce a solution iso-osmotic with blood plasma

Molecular weight of Dextrose = 180

Dextrose in non-ionising

(A) 54 g / litre
(B) 50 g / litre
(C) 52 g / litre
(D) 53 g / litre

119. The amount of 90% alcohol needed to prepare 600 ml of 60% alcohol is

(A) 300 ml
(B) 400 ml
(C) 500 ml
(D) 600 ml

120. Standard Operating Procedures (SOPs) are concerned with maintenance of

(A) Equipments
(B) Premises
(C) Lands
(D) Glasswares

121. The code of federal regulations 21 part 211 (21 CFR, part 211) revised April 1, 2006 contains minimum GMPs for the preparation of

(A) Pharmaceutical products for human use
(B) Pharmaceutical products for experiments
(C) Pharmaceutical products for research
(D) Pharmaceutical products for analysis

122. Acute apex, asymmetrical base, pinnate venation and anastomoning vein of a leaf/leaflet indicate

(A) Vasaka
(B) Datura
(C) Digitalis
(D) Senna

123. Indian aloe is obtained from the species known as

(A) Aloe Balbadensis
(B) Aloe Ferox
(C) Aloe Perry
(D) Aloevera var officinali

124. Aloe farox is commercially known as

(A) Barbados aloe
(B) Cape aloe
(C) Zangibar aloe
(D) India aloe

125. Drug which reacts with hydrochloric acid and potassium ferricyanide solution gives yellow colour

(A) Morphine
(B) Codeine
(C) Papaverine
(D) Meconic acid

126. Which one is epidermis consist of strongly thickened, pitted and lignified trichomes

(A) Nux-vomica
(B) Digitalis
(C) Senna
(D) Datura

127. Which is FDA approved colour for foods and drugs

(A) Shellac
(B) Cantharides
(C) Honey
(D) Cochineal

128. Protoplasts are the cells devoid of
(A) Nucleus only
(B) Nucleus and cell wall
(C) Cell wall only
(D) Cell membrane only

129. The phenomenon of reversion of mature cells to meristematic cell tissue is known as
(A) Redifferentiation
(B) Dedifferentiation
(C) Retrotransformation
(D) Reverse transformation

130. Haploid plants can be generated from which of the following?
(A) Meristem culture
(B) Leaf culture
(C) Hairy Root culture
(D) Anther culture

131. Which of the following is used in the fermentative production of Vitamin – C (Ascorbic Acid)?
(A) Acetobactor suboxydans
(B) Streptomyces griseus
(C) Clostridium acetobutylicum
(D) Candida flareri

132. Which of the following is NOT used as antifoaming agent?
(A) Stearyl alcohol
(B) Vegetable oils
(C) Pectin
(D) Silicones

133. The Peruvian bark is used for
(A) Anti tumour
(B) Bitter tonic
(C) Antiamoebic
(D) Diuretic

134. Which of the following intermediates is NOT valid in the biosynthesis of cholesterol?
(A) Squalene
(B) Shikimic acid
(C) Mevalonic acid
(D) Isopentenyl pyrophosphate (IPP)

135. What is the storage form of glucose in plants?

(A) Glycogen
(B) Dextran
(C) Sucrose
(D) Starch

136. The shikimic acid pathway provides an alternative route to ———— compounds.

(A) Terpenoids
(B) Aromatic compounds
(C) Steorids
(D) Carbohydrates

137. WHO guidelines on GMP for herbal medicines do NOT deal with

(A) Personnel in the manufacturing facility
(B) Post-harvest processing of herbal materials
(C) Premises of the manufacturing unit
(D) Documentation of relevant processes

138. In WHO guidelines for assessing quality, Herbal Medicinal Products refer to

(A) Herbal preparations
(B) Finished herbal products
(C) Both (A) & (B) above
(D) Such a term is Not used in the guidelines.

139. What is the power house of plant cell?

(A) Mitochondria
(B) Lysosome
(C) Golgi body
(D) Nucleus

140. Which of the following is NOT derived form α–ketoglutarate

(A) Glutamate
(B) Proline
(C) Arginine
(D) Leucine

141. Drugs Technical Advisory Board (DTAB) for Allopathy consists of Ex officio, elected and nominated members. How many are elected members?

(A) 18 members
(B) 8 members
(C) 5 members
(D) 3 members

142. Requirements and guidelines on clinical trials for import and manufacture of new drugs are given in ————————?

(A) Schedule U
(B) Schedule T
(C) Schedule Y
(D) Schedule F

143. Adulterated drugs means

(A) Drugs consisting of any filthy, putrid, decomposed substances
(B) Drugs which are imitations
(C) Drugs which bear names of other drug
(D) Drugs not having claimed therapeutic values

144. Standards of disinfectant fluids are specified in

(A) Schedule P
(B) Schedule S
(C) Schedule O
(D) Schedule W

145. Which of the following statement is correct for defining "Phytopharmaceutical drug"?

(A) Purified and standardized fraction of an extract of a medicinal plant
(B) Purified and standardized fraction of an extract of a medicinal plant containing minimum form bioactive compounds
(C) Any plant based product for human use
(D) Any plant based product for parenteral use

146. The validity period of retail sale Licence of Drugs is

(A) 1 yr
(B) 2 yr
(C) 3 yr
(D) unlimited time

147. The container of a medicine for internal use is labelled "Caution : it is dangerous to take their preparation except under medical supervision". This is the requirement for

(A) medicine specified in schedule H
(B) medicine specified in schedule H1
(C) medicine specified in schedule G
(D) medicine specified as narcotic drugs

148. Licence to operate blood bank or process whole human blood is issued by

(A) State Health Secretary
(B) State Drugs Controller
(C) Director General Health Services, GOI
(D) Drugs Controller General India

149. Import of drugs for personal use contains average doses in milligram upto

(A) 200
(B) 100
(C) 50
(D) 400

150. Person from teaching profession are nominated in PCI by

(A) Executive Committee
(B) Election
(C) Central Government
(D) State Government

151. _____ is the precursors for Vitamin A.

(A) Carotenes
(B) Cholesterol
(C) Calciferol
(D) Ergosterol

152. Insulin plays an essential part in

(A) hypertension
(B) synthesis of thyrocine
(C) glucose metabolism
(D) blood pressure

153. For _____ fluids, viscosity is not a constant but varies based upon the rates of shear or shear stress at which it is measured.

(A) Dynamic
(B) Absolute
(C) Newtonian
(D) Non-Newtonian

154. At a given temperature and pressure a known amount of a gas has fixed volume, keeping the temperature and the amount constant is _____ law.

(A) Boyle's law
(B) Avogadro's law
(C) Charle's law
(D) Gay Lussae's law

155. _____ indicators are used in complexometric titrations.

(A) Acid-base indicators
(B) Self indicators
(C) Metalochronic indicators
(D) Starch-Iodide indicators

156. Which of the following apparatus is used to estimate oxygen under gasometric analysis?

(A) Hempel apparatus
(B) Gutzeit apparatus
(C) Kjeldahl apparatus
(D) Soxhlet apparatus

157. Dienes undergo 1,4 – addition and arenes give non conjugated cyclo hexadienes such reductions are known as

(A) Pinnacolization
(B) Birch reduction
(C) Clemmensen reduction
(D) Hydride transfer reduction

158. Reduction with active metals dissolved in liquid ammonia is called _____ reduction.

(A) Cannizzaro
(B) Crossed Cannizzaro
(C) Birch
(D) Clemmenson's

159. Mayer reagent contains

(A) Potassium thiocyanate
(B) Potassium tetra oxalate
(C) Potassium mercuric iodide
(D) Pyridine bromide

160. Menthol is a _____ alcohol.

(A) Primary
(B) Unsaturated secondary
(C) Saturated secondary
(D) Tertiary

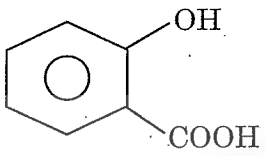
161. Which does not regulate/modify the reproductive system?

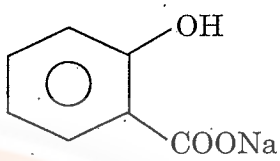
(A) Diosgenin
(B) Androgen
(C) Oestrogen
(D) Gestogen

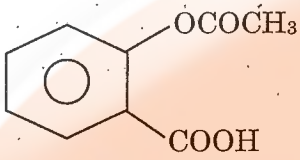
162. The absolute configuration of steroid can be explained by the rule

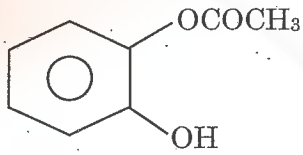
(A) Bernal rule
(B) Mills's rule
(C) Crow foot rule
(D) Wieland rule

163. Which of the following chemical structure is the Aspirin?

(A) 

(B) 

(C) 

(D) 

164. Which of the following antimalarial drugs having 4-amino quinoline nucleus?

(A) Pama quine

(B) Mepacrine

(C) Chloroquine

(D) Pyrimethamine

165. Purine analogous drug used in anticancer therapy.

(A) Vinblastine

(B) Dactinomycin

(C) Metho trexate

(D) Thioguanine

166. Quinine and Quinidine are

(A) Tautomers

(B) Diastereomers

(C) Super impossible mirror image

(D) Non super impossible mirror image

167. Which one of the following is Thiophene derivatives of histamine H_1 receptor antagonist?

(A) Doxylamine succinate

(B) Mepyramine hydrochloride

(C) Methaphenilene hydrochloride

(D) Zolamine hydrochloride

168. _____ prepared by the interaction of 2-methyl 2 phenyl succinic acid with excess of 40% methylamine.

(A) Primidone

(B) Sultiame

(C) Carbamazepine

(D) Methsuximide

169. Which one of the following drug is used as long acting barbiturates?

(A) Allobarbital

(B) Pentobarbital sodium

(C) Phenobarbital

(D) Thiopental sodium

170. Separation of amino acids is identified in paper chromatography by spraying a dilute solution of

(A) Ammonia

(B) Aniline hydrogen phthalate

(C) 95% ethanol

(D) Ninhydrin

171. Most widely used for producing IR source radiation

(A) Mercury lamp

(B) Sodium lamp

(C) Globar

(D) Deuterium lamp

172. Most commonly used solvent in NMR studies is

(A) ethanol (90%)
(B) acetone
(C) deuterated chloroform
(D) dichloro methane

173. Hypsochromic shift in UV wavelength means

(A) increase in the intensity of an absorption band
(B) a shift of λ_{max} to longer wavelength
(C) a shift of λ_{max} to shorter wavelength
(D) decrease in the intensity of an absorption band

174. IR spectra is obtained due to

(A) vibrational transitions
(B) electronic transitions
(C) rotational transitions
(D) spin reversal

175. Enantiomers can be identified by the change in plane polarised light's property of

(A) increase in frequency
(B) quenching effect
(C) rotation by exactly same angle but opposite direction
(D) rotation in same direction

176. What would be the nature of (A) mobile phase and (B) stationary phases (in the same order) for a HPLC (Reverse phase chromatographic system)?

(A) non polar and polar
(B) non aqueous and aqueous
(C) gas and fluro carbon
(D) polar and non polar

177. Highly ionised drug can
(A) Cross the gastrointestinal mucosa easily
(B) Cross the placenta easily
(C) Easily be excreted through kidney
(D) Cross the blood brain barrier easily

178. Prodrug refers to a/an
(A) drug which potentiates the action of the other drug
(B) drug which inhibits the action of the other drug
(C) inactive drug which gets activated in the body by biotransformation
(D) active drug which gets inactivated in the body by biotransformation

179. The appearance of a characteristic toxic effect of a drug in an individual at therapeutic dose is known as
(A) Idiosyncrasy
(B) Intolerance
(C) Dependence
(D) Side effect

180. Acidic drugs generally bind to
(A) plasma albumin
(B) α_1 acid glycoprotein
(C) β_1 acid glycoprotein
(D) γ acid glycoprotein

181. The drug which is concentrated in retina of the eye is
(A) Atropine
(B) Chlorpromazine
(C) Chloroquine
(D) Digoxin

182. The G protein coupled receptor whose major effector pathway is phospholipase C : IP_3 – DAG is
(A) α_1
(B) β_1
(C) $5HT_1$
(D) A_1

183. Assertion (A) : Paediatric formulations of Aspirin are prohibited in India.
Reason (R) : High doses of Aspirin may cause respiratory acidosis.

(A) Both (A) and (R) are true and (R) is the correct reason for (A)
(B) Both (A) and (R) are true but (R) is not the correct reason for (A)
(C) (A) is true but (R) is false
(D) (R) is true but (A) is false

184. Spina bifida and other neural tube effects are the teratogenic effects of
(A) Lithium carbonate
(B) Indomethacin
(C) Valproate sodium
(D) Warfarin

185. Morphine stimulates
(A) respiratory centre
(B) chemoreceptor trigger zone
(C) cough centre
(D) vasomotor centre

186. Antipsychotic drugs are potent
(A) D_1 receptor blocking agents
(B) D_2 receptor blocking agents
(C) D_3 receptor blocking agents
(D) D_4 receptor blocking agents

187. Glutamate and aspartate are
(A) Excitatory amino acids
(B) Inhibitory amino acids
(C) Excitatory amines
(D) Inhibitory amines

188. Selective Cox-II inhibitor is
(A) Piroxicam
(B) Celecoxib
(C) Asprin
(D) Indomethacin

189. Plasma half life of Glibenclamide is

(A) 12 hrs
(B) 3 – 4 hrs
(C) 35 hrs
(D) 18 hrs

190. Peak plasma concentration of regular soluble insulin is normally achieved after

(A) 15 – 30 minutes
(B) 2 – 3 hours
(C) 8 – 10 hours
(D) 15 – 20 hours

191. Which of the following is orally effective?

(A) TSH
(B) FSH
(C) Thyroxine
(D) Insulin

192. Which of the following is an antiestrogen?

(A) Tamoxifen
(B) Mife pristone
(C) Flutamide
(D) Oxytoxin

193. All the following drugs are components of drug regimen used in the treatment of H.pylori infection except

(A) Metronidazole
(B) Oxytetracycline
(C) Amoxycillin
(D) Clarithromycin

194. The topical sulfonamide which prevents colonization of burns by both gram positive and gram negative bacteria is

(A) sulfisoxazole
(B) mafenide propionate
(C) sulfadiazine
(D) sulfasalazine

195. Amikacin is a semisynthetic derivative of

(A) Kanamycin
(B) Penicillin
(C) Mitomycin
(D) Bleomycin

196. The antiulcer drug which has a thiazole ring is

(A) Famotidine
(B) Ranitidine
(C) Cimetidine
(D) Dexrabeprazole

197. Bromocriptine is a selective

(A) D_1 agonist
(B) D_2 agonist
(C) D_1 antagonist
(D) D_2 antagonist

198. The H_1 receptor antagonist having a high antimuscarinic action is

(A) Diphenhydramine HCl
(B) Loratadine
(C) Fexofenadine
(D) Hydroxyzine

199. Ondansetron acts on

(A) 5 HT_3 receptor
(B) H_1 receptor
(C) D_2 receptor
(D) NK_1 receptor

200. All the following drugs are mucosal protective agents except

(A) Bismuth salts
(B) Sucral fate
(C) Misoprostol
(D) Pirenzepine

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