

JUNIOR ANALYST IN THE DRUGS TESTING LABORATORY

PHARMACY / PHARMACEUTICAL SCIENCE (DEGREE STANDARD)

1. Manufacture of drugs specified in schedule C, C₁ and X in form _____.
- (A) 24C (B) 18B
~~(C) 27B~~ (D) 20C
(E) Answer not known
2. The standards for cosmetics are laid down in schedule _____.
- (A) X (B) Y
~~(C) S~~ (D) W
(E) Answer not known
3. The schedule in Drugs Rules, 1945 that deals with the standards for disinfectant fluids is _____.
- (A) Schedule B (B) Schedule F
~~(C) Schedule O~~ (D) Schedule P
(E) Answer not known
4. Good Manufacturing practices for Ayurvedic, Siddha, Unani Medicines specified in schedule _____ of the Drugs Rule, 1945.
- ~~(A) T~~ (B) V
(C) X (D) Y
(E) Answer not known
5. Every Drugs Inspectors shall be deemed to be public servant within the meaning of _____ section of Indian Penal Code.
- (A) 22 ~~(B) 21~~
(C) 23 (D) 24
(E) Answer not known

6. Pharmacy Council of India was constituted by the Central Government for the first time in 1949. It is reconstituted after every _____ years.
- (A) 4 (Four) (B) 6 (Six)
~~(C)~~ 5 (Five) (D) 3 (Three)
(E) Answer not known .
7. Documents carrying advertisements are prohibited under
- (A) Consumer Protection Act, 2016
~~(B)~~ Sea Customs Act, 1878
(C) Drugs and Cosmetics Act, 1940
(D) Narcotic and Psychotropic Substances Act, 1985
(E) Answer not known
8. Registered Medical Practitioner is
- (i) Qualification specified in Indian Medical Degree Act, 1916
(ii) Qualification specified in Pharmacy Act, 1948
(iii) Qualification specified in the Schedules of Indian Medical Council Act, 1956
- (A) (i) and (ii) ~~(B)~~ (i) and (iii)
(C) (ii) and (iii) (D) (i), (ii) and (iii)
(E) Answer not known
9. Drug technical advisory board was constituted under
- (A) Drugs and Magic Remedies Act, 1954
(B) Prevention of Cruelty to Animals Act, 1961
~~(C)~~ Drugs and Cosmetics Act, 1940
(D) Medical Termination of Pregnancy Act, 1971
(E) Answer not known

10. According to the schedule I of Drugs Price Control Order, Symbols P, S and T represents
- (A) Period, Stability and Testing of Drugs
 - (B) Period, Size and Testing of Drug
 - (C) Primary, Secondary and Testing of Drugs
 - ~~(D)~~ Primary, Secondary and Tertiary Levels
 - (E) Answer not known
11. Pharmacoeconomics means
- ~~(A)~~ Comparative study therapeutic value one pharmaceutical drug on drug therapy to another
 - (B) Study of production, distribution and consumption of goods and services
 - (C) Science deals with the financial outcome of the pharmaceutical agents
 - (D) Study of growth of pharmaceutical market
 - (E) Answer not known
12. Dealer means
- (i) Brand ambassador
 - (ii) Purchaser
 - (iii) Saler
 - (iv) Wholesaler
 - (v) Retailer
- (A) (i), (ii) and (iii), (iv)
 - ~~(C)~~ (ii), (iii) and (iv), (v)
 - (E) Answer not known
 - (B) (i), (iv) and (v), (iii)
 - (D) (i), (ii), (iv) and (v)

13. Drugs (Price Control) Order 2013 was made with the power mentioned in
- (i) Drugs and Cosmetics Act, 1940
 - (ii) Essential Commodities Act, 1955
 - (iii) Shops and Establishment Act, 1954
 - (iv) Drug Price Control Order, 1995
- (A) (i) and (ii)
 - (B) (ii) and (iii)
 - (C) (i) and (iv)
 - ~~(D) (ii) and (iv)~~
 - (E) Answer not known
14. The Central Government Fund utilized for combating illicit traffic and controlling the abuse of Norcotic and Psychotropic Substances, Known as
- (A) Digital India Mission Fund
 - ~~(B) National Fund for Control of Drug abuse~~
 - (C) Aarogya Setu Fund
 - (D) National Urban Affairs Fund
 - (E) Answer not known
15. The Norcotic and Psychotropic Substances Act enacted by Parliament in which year of Republic of India?
- (A) 38
 - ~~(B) 36~~
 - (C) 40
 - (D) 26
 - (E) Answer not known

16. The President of State Pharmacy Council is
- (A) Elected among the members
 - (B) Nominated by the State Government
 - (C) Elected by the members of Legislative Assembly
 - (D) Nominated by the Speaker of Legislative Assembly
 - (E) Answer not known
17. The executive committee of Pharmacy Council of India consists of President, Vice President and five other members. The five other members are decided by
- (A) Nomination of the President of Pharmacy Council of India
 - (B) Election among the members of the Central Council
 - (C) Nomination by the Central Government
 - (D) Nomination by the Drugs Controller General India
 - (E) Answer not known
18. Pharmacy Act has been divided into five chapters and _____ sections.
- (A) 41
 - (B) 46
 - (C) 51
 - (D) 48
 - (E) Answer not known
19. As per the Pharmacy Act, 1948 each State Pharmacy Council shall supply to the Central Council _____ copies of the register for the state as soon as may be after the first day of April of each year.
- (A) Three
 - (B) Four
 - (C) Five
 - (D) Six
 - (E) Answer not known

20. Which one of the following is not an ex-officio member of Pharmacy Council of India?
- (A) The Director of Health Services
 - (B) The Director of Central Drug Laboratory
 - (C) The Drugs Controller General of India
 - ~~(D)~~ The Director of Pharmaeopoea Laboratory
 - (E) Answer not known
21. Phenyl Propane derivatives are bio-synthesised through _____ pathway.
- (A) ACETATE
 - (B) MALONATE
 - (C) MEVALONATE
 - ~~(D)~~ SHIKIMIC ACID
 - (E) Answer not known
22. In Embden-Meyerh off scheme of glycolysis, the number of acetate molecules produced by one glyucose molecule are
- (A) 1
 - ~~(B)~~ 2
 - (C) 3
 - (D) 6
 - (E) Answer not known
23. The key intermediate in the bio-synthesis of Terpenoids is _____.
- (A) SHIKIMIC ACID
 - (B) CINNAMIC ACID
 - (C) BENZOIC ACID
 - ~~(D)~~ MEVALONIC ACID
 - (E) Answer not known

24. Which enzyme converts glucose into Glucose 6-phosphate in Glycolysis pathway?
- (A) Phosphogluco isomerase ~~(B) Hexokinase~~
(C) Aldolase (D) Phosphoglycerokinase
(E) Answer not known
25. In Plant Tissue Culture, the thermo-labile compounds are sterilised by using _____.
- (A) Autoclave (B) Hot Air Oven
~~(C) Bacterial Filter~~ (D) Filter Paper
(E) Answer not known
26. In Protoplast Culture, MANNITOL is used as _____.
- (A) Protein Source (B) Micro-Nutrient
~~(C) Osmotic Stabilizer~~ (D) Plant Growth Regulator
(E) Answer not known
27. The chemical substance used to induce Protoplast fusion in Plant Tissue Culture is _____.
- (A) Sodium Chloride (B) Sodium Hypochlorite
~~(C) Poly-Ethylene Glycol~~ (D) Sodium Carbonate
(E) Answer not known
28. In Plant Tissue Culture, the Genetic Potential of a Plant Cell to develop into an entire organism by regeneration is termed as _____.
- (A) CALLUS FORMATION (B) RE-DIFFERENTIATION
~~(C) TOTIPOTENCY~~ (D) BIO-TRANSFORMATION
(E) Answer not known

29. The specific effects of _____ are cell elongation giving an increase in stem length.
- ~~(A)~~ AUXINS (B) ABSCISIC ACID
(C) ETHYLENE (D) CYTOKININS
(E) Answer not known
30. KUROSAWA, a Japanese physiologist initiated the discovery of the plant growth regulator GIBBERELLINS from the Fungus, Gibberella _____.
- (A) purpurea ~~(B)~~ fujikuroi
(C) gerardiana (D) amansii
(E) Answer not known
31. The plant growth regulator which plays a major physiological role in cell division is _____.
- ~~(A)~~ CYTOKININS (B) AUXIN
(C) ABSCISIC ACID (D) ETHYLENE
(E) Answer not known
32. Which one of the following statements is TRUE?
- (A) Auxins help in the prevention of apical dominance
~~(B)~~ Effects of cytokinins are more specific on cell division
(C) Gibberellins inhibit cell elongation and shorten plants
(D) Gibberellic acid is also popularly referred to as GA₁
(E) Answer not known

33. In Quantitative Microscopy, the Crude Drug LYCOPODIUM used as standard contains _____ spores per mg of the powder.
- (A) 94,000 (B) 96,000
(C) 95,000 (D) 97,000
(E) Answer not known
34. Stomata is made up of a minute epidermal opening called 'STOMA' surrounded by _____ shaped cells known as GUARD CELLS.
- (A) PRISM (B) SPHERICAL
 (C) KIDNEY (D) NEEDLE
(E) Answer not known
35. DIACYTIC type of stomata is present in the crude drug _____.
- (A) BELLADONNA (B) DIGITALIS
(C) PILOCARPUS (D) VASAKA
(E) Answer not known
36. Addition of citral to citrus oils like oil of lemon, oil of orange etc. is adulteration of the type _____.
- (A) Substitution of inferior commercial varieties
(B) Substitution of exhausted drugs
(C) Substitution of superficially similar but cheaper natural substances
 (D) Use of synthetic chemicals to enhance or fortify the natural constituents
(E) Answer not known



37. In Microscopical Evaluation, the reagent used for the detection of Mucilage is _____.
- (A) Phloroglucinol and Concentrated Hydrochloric acid
 - (B) Glycerin Water
 - (C) Ruthenium Red
 - (D) $N/50$ IODINE
 - (E) Answer not known
38. According to the Morphological classification of crude drugs, example of a drug which comes under the category of GUMS is _____.
- (A) ALOES
 - (B) GELATIN
 - (C) PALE CATECHU
 - (D) ACACIA
 - (E) Answer not known
39. The unorganised Drug 'OPIUM' is obtained from _____ substance of the plant.
- (A) Juice
 - (B) Latex
 - (C) Gum
 - (D) Mucilage
 - (E) Answer not known

40. Match the crude drug correctly with the main chemical constituent present :

- | | |
|----------------|-----------------|
| (a) GLYCOSIDES | 1. NUX-VOMICA |
| (b) ALKALOIDS | 2. PALE-CATECHU |
| (c) TANNINS | 3. COLOPHONY |
| (d) RESINS | 4. Senna |

- | | (a) | (b) | (c) | (d) |
|----------------|------------------|-----|-----|-----|
| (A) | 1 | 2 | 4 | 3 |
| (B) | 2 | 1 | 3 | 4 |
| (C) | 4 | 1 | 2 | 3 |
| (D) | 4 | 2 | 3 | 1 |
| (E) | Answer not known | | | |

41. Immunosuppressants are generally used for the following conditions except

- | | |
|-----------------------|----------------------------------|
| (A) Myasthenia gravis | (B) Systemic lupus erythematosus |
| (C) COPD | (D) Psoriasis |
| (E) Answer not known | |

42. Tacrolimus acts by inhibiting

- (A) DNA and RNA synthesis
- ~~(B) T-cell proliferation~~
- (C) Antilymphocyte antibody formation
- (D) All the above
- (E) Answer not known

43. Which is the longest acting β_2 selective agonist used in Bronchial Asthma?
- (A) Isoprenaline (B) Salbutamol
~~(C) Formoterol~~ (D) Ephedrine
(E) Answer not known
44. Mechanism of action of theophylline in bronchial asthma is
- (A) β_2 agonist (β_2)
(B) Anticholinergic
~~(C) Phosphodiesterase 4 inhibitor~~
(D) Inhibitory of mucociliary clearance
(E) Answer not known
45. High ceiling diuretics are useful in the treatment of following EXCEPT
- (A) Generalized Edema (B) Cerebral Edema
~~(C) Pulmonary hypertension~~ (D) Acute Pulmonary Edema
(E) Answer not known
46. Which of the following diuretics is contraindicated in congestive cardiac failure?
- (A) Furosemide (B) Hydrochlorothiazide
(C) Spironolactone ~~(D) Mannitol~~
(E) Answer not known
47. Which is not an antiplatelet drug?
- (A) Aspirin (B) Clopidogrel
(C) Ticlopidine ~~(D) Streptokinase~~
(E) Answer not known

48. ACE inhibitors causes mainly
1. Hyperkalacmia, Hypotension
 2. Dysgensia, Acute Renal Failure
 3. Nausea, Vomiting, Diarrhoea
 4. Scleroderma Crisis
- (A) 1 and 2 only (B) 3 and 4 only
(C) 3 only (D) 4 only
(E) Answer not known
49. In myasthenia gravis, the number of free _____ receptors may be reduced to $\frac{1}{3}$ of normal or less and structural damage to the neuromuscular junction.
- (A) α (B) β
(C) μ (D) Nm
(E) Answer not known
50. It is a derivative of Dopamine, but not a D_1 or D_2 receptor agonist, it acts mainly on β -adrenergic receptors and is a weak α agonist
- (A) Aspirin (B) Barbiturate
(C) Celecoxib (D) Dobutamine
(E) Answer not known
51. Which drug is a second generation β blocker?
- (A) Propranolol (B) Sotalol
(C) Esmolol (D) Pindalol
(E) Answer not known

52. Inhibitor of GABA-transaminase enzyme
- (A) Vancomycin (B) Valsartan
~~(C) Viga batrin~~ (D) Vaso pressin
(E) Answer not known
53. Benzodiazepine antagonist
- ~~(A) Flumazenil~~ (B) Flurazepam
(C) Alprazolam (D) Clonazepam
(E) Answer not known
54. Catechol-o-methyl transferase (COMT) inhibitor used in the treatment of parkinsonism
- (A) Methicillin ~~(B) Entacapone~~
(C) Chloramphenicol (D) Clarithromycin
(E) Answer not known
55. Aldehyde dehydrogenase inhibitor
- (A) Triazolam (B) Flurazepam
(C) Miclazolam ~~(D) Disulfiram~~
(E) Answer not known
56. The receptor consists of 7 membrane spanning helical segments of hydrophobic amino acids. The amino terminous of the chain lies on the extracellular face, while the carboxy terminous is on the cytosolic side
- (A) Ion channel receptor
~~(B) G-protein coupled receptor~~
(C) Transmembrane enzyme linked receptor
(D) Nuclear receptor
(E) Answer not known

57. Movement of the drug from its site of Administration into the circulation is called
- (A) Protein binding ~~(B)~~ Absorption
(C) Cyclization (D) Tissue storage
(E) Answer not known
58. In Biotransformation reactions, phase I reaction is also known as
- ~~(A)~~ Non synthetic reaction (B) Synthetic reaction
(C) Conjugation reaction (D) Acetylation reaction
(E) Answer not known
59. The two drugs act on different receptors or by different mechanisms, but have opposite overt effects on the same physiological function, i.e. have pharmacological effects in opposite direction
- (A) Chemical antagonism ~~(B)~~ Physiological antagonism
(C) Physical antagonism (D) Synergism
(E) Answer not known
60. It refers to the capacity of a drug to cause foetal abnormalities when administered to the pregnant mother
- (A) Drug dependence ~~(B)~~ Teratogenicity
(C) Phototoxic (D) Drug Addiction
(E) Answer not known

61. The formula to calculate partition coefficient is
- (A) $P = \frac{\text{Concentration of drug in octanol}}{\text{Concentration of drug in aqueous}}$
- (B) $P = \frac{\text{Concentration of drug in aqueous}}{\text{Concentration of drug in octanol}}$
- (C) $P = \frac{1}{\text{Concentration of drug in octanol}}$
- (D) $P = \frac{1}{\text{Concentration of drug in aqueous}}$
- (E) Answer not known
62. Hammett substituent constant is not applicable to which of the following substituents?
- (A) Ortho (B) Meta
- (C) Para (D) Aromatic
- (E) Answer not known
63. A positive value for π (Substituent hydrophobicity constant) indicates which of the following?
- (A) Substituent is equally hydrophobic as hydrogen
- (B) Substituent is less hydrophobic than hydrogen
- (C) Substituent is more hydrophobic than hydrogen
- (D) Substituent is equally hydrophilic as hydrogen
- (E) Answer not known

64. Hydrophobicity of a specific region (individual substituent) on the drug's skeleton is measured by any one of following factor
- (A) K_H (Dissociation constant)
 - (B) σ (Hammett substituent constant)
 - (C) E_S (Taft's steric factor)
 - ~~(D)~~ π (Substituent hydrophobicity constant)
 - (E) Answer not known
65. The _____ summarizes the important binding groups which are required for activity and their relative positions in space with respect to each other.
- ~~(A)~~ Pharmacophore
 - (B) Scaffold
 - (C) Analogs
 - (D) Ligand Fragments
 - (E) Answer not known
66. Acetylcholine, primary neurotransmitter is rapidly hydrolysed by the enzyme
- (A) Serine decarboxylase
 - (B) Choline-N-Methyl Transferase
 - (C) Monoamine oxidase
 - ~~(D)~~ Cholinesterases
 - (E) Answer not known
67. The enzyme which is not involved in biosynthesis of Epinephrine and Norepinephrine
- (A) Tyrosine hydroxylase
 - ~~(B)~~ Monoamine oxidase
 - (C) Dopamine- β -hydroxylase
 - (D) Phenyl ethanolamine-N-Methyl transferase
 - (E) Answer not known

68. Benzoin is used to prepare
~~(A)~~ Phenytoin (B) Chloral hydrate
(C) Diazepam (D) Carbamazepine
(E) Answer not known
69. Which of the following is used to synthesize ephedrine?
~~(A)~~ Benzaldehyde (B) Anthranilamide
(C) Piperazine (D) Phenylacetone nitrile
(E) Answer not known
70. Which of the following is a cardiac glycoside?
(A) Saponins ~~(B)~~ Digitoxin
(C) Aloe-emodin (D) Rhein
(E) Answer not known
71. Which of the following compound belongs to phenyl ethylamine alkaloid?
~~(A)~~ Ephedrine (B) Papaverine
(C) Colargene (D) Reserpine
(E) Answer not known
72. An example for the anticancer pyrimidine analogue
(A) Cladribine (B) Fludarabine
~~(C)~~ Cytarabine (D) Methotrexate
(E) Answer not known

73. The sulphonamide used for local infections is
 (A) Sulphacetamide
(B) Sulphamethizole
(C) Sulphathiazole
(D) Trimethoprim with sulphamethoxazole
(E) Answer not known
74. Which of the following drug is a proton pump inhibitor?
 (A) Omeprazole
(B) Cetrizine
(C) Ketotifen
(D) Chromolyn sodium
(E) Answer not known
75. Which one of the following drug is phenothiazine compounds of Antipsychotics?
(A) Sulforidazine
(B) Clozapine
 (C) Chlorpromazine
(D) Pipradrol
(E) Answer not known
76. Identify the antiviral drug which acts by inhibiting Non-Nucleoside reverse transcriptase
(A) Acyclovir
(B) Ribavirin
 (C) Delaviridine
(D) Lopinavir
(E) Answer not known
77. Isocarboxayid, antidepressant CNS drug inhibits
(A) Nor epinephrine
(B) MAO (Monoamine oxidase)
(C) Serotonin
(D) Dopamine
(E) Answer not known

78. An spiro antifungal antibiotic used in treatment of ringworm infections
(A) Natamycin (B) Naftifine
(C) Nystatin (~~D~~) Griseofulvin
(E) Answer not known
79. An aziridine containing anticancer drug used for treatment of breast, ovarian, bronchogenic carcinoma and malignant lymphomas
(A) Cyclophosphamide (B) Decarbazine
(~~C~~) Thiotepa (D) Carmustine
(E) Answer not known
80. The chemical groups responsible for exerting cardiotonic activity is
(A) OH group at C_{14} (B) Phenanthrene ring
(C) Glycone (~~D~~) Aglycone
(E) Answer not known
81. In the citric acid fermentation presence of following metal decreases citric acid yield
(A) Magnesium (B) Molybdenum
(~~C~~) Manganese (D) Sodium
(E) Answer not known
82. The corn steep liquor medium used in the fermentation process for the production of penicillin provide all the following except
(~~A~~) oil (B) peptide
(C) amino acids (D) amines
(E) Answer not known

83. Vitamin B_{12} was obtained as a by product during fermentation of antibiotic
- (A) Penicillin (B) ~~Streptomycin~~
 (C) Kanamycin (D) Neo mycin
 (E) Answer not known
84. Which of the following is a polysaccharide?
- (A) ~~Dextron~~ (B) Fibrinogen
 (C) Fibrin (D) Thrombin
 (E) Answer not known
85. Which is the enzyme which converts fibrinogen to fibrin?
- (A) Human plasminogen (B) Calcium alginate
 (C) ~~Human Thrombin~~ (D) Gelatin
 (E) Answer not known
86. Which of the following is a naturally occurring anticoagulant?
- (A) Acid-Citrate-Dextrose (B) Disodium Edetate
 (C) ~~Heparin~~ (D) Fibrin foam
 (E) Answer not known
87. The following are known as Anticoagulants, except
- (A) CITRATES (B) ~~FIBRIN~~
 (C) DISODIUM EDETATE (D) HEPARIN
 (E) Answer not known

88. The following are the properties of an ideal plasma substitute except
- (A) High rate of excretion or destruction by the body
 - (B) Viscosity similar to that of plasma
 - (C) Same colloidal osmotic pressure as whole blood
 - (D) Free from toxicity, antigenicity and pyrogenicity
 - (E) Answer not known
89. Which of the following is the soluble constituent of plasma?
- (A) Fibrinogen
 - (B) Prothrombin
 - (C) Gamanaglobulin
 - (D) Albumin
 - (E) Answer not known
90. Oral Typhoid Vaccine (Typhoral) is a _____.
- (A) Live vaccine
 - (B) Killed vaccine
 - (C) Sub unit vaccine
 - (D) Toxoid
 - (E) Answer not known
91. Antibodies that neutralise exotoxins produce
- (A) Artificially produced passive immunity
 - (B) Naturally acquired passive immunity
 - (C) Artificially stimulated active immunity
 - (D) Naturally acquired active immunity
 - (E) Answer not known

92. Vaccination is an example for
- (A) Natural immunity
 - (B) Artificially simulated active immunity
 - (C) Naturally acquired passive immunity
 - (D) Artificially produced passive immunity
 - (E) Answer not known
93. Babies show higher resistant to chicken pox. This is example for which of the immunity?
- (A) Naturally occurring active immunity
 - (B) Naturally occurring passive immunity
 - (C) Naturally acquired active immunity
 - (D) Artificially produced active immunity
 - (E) Answer not known
94. Tetanus immunoglobulin is administered through
- (A) Intra-Venous
 - (B) Subcutaneous
 - (C) Intra-Dermal
 - (D) Intra-Muscular
 - (E) Answer not known
95. The concentration of povidone iodine that can be used as a disinfectant
- (A) 2%
 - (B) 15%
 - (C) 20%
 - (D) 10%
 - (E) Answer not known

96. The European pharmacopoeia specifies a temperature of 22 to 25°C for incubation of
- (A) Bacteria (B) Virus
(C) Plasmodium ~~(D) Fungi~~
(E) Answer not known
97. Name the culture media used for the detection of Aerobes
- (A) Cooked meat media (B) Semi cooked meat media
~~(C) Peptone Broth~~ (D) Liver Broth
(E) Answer not known
98. In official preparation the following preservatives are used of 0.1 % except
- (A) Benzoic Acid ~~(B) Cetrimide~~
(C) Chlorocresol (D) Sodium Benzoate
(E) Answer not known
99. Which of the following gas is used as bactericide?
- ~~(A) Chlorine gas~~ (B) Bromine gas
(C) Iodine gas (D) Flurine gas
(E) Answer not known
100. Moist heat sterilization condition in autoclave is
- (A) 15 lb steam pressure (121.5°C) for 10 min.
(B) 20 lb steam pressure (126.5°C) for 10 min.
(C) 10 lb steam pressure (115.5°C) for 20 min.
~~(D) 15 lb steam pressure (121.5°C) for 20 min.~~
(E) Answer not known

101. The system of medicine developed by Dr. Samuel Christian Friedrich Hahnemann is
- (A) Aromatherapy (B) ~~Homoeopathy~~
(C) Unani (D) Chinese
(E) Answer not known
102. Homeopathic remedies are made using
- ~~(A) Dilution~~ (B) Concentration
(C) Extraction (D) Solidification
(E) Answer not known
103. Camphor oil are prepared by
- (A) Boiling (B) Room temperature extraction
~~(C) Steam distillation~~ (D) Cold Maceration
(E) Answer not known
104. The chromatographic technique used to isolate and analyse volatile compounds is
- (A) thin layer chromatography (B) paper chromatography
(C) column chromatography ~~(D) gas chromatography~~
(E) Answer not known
105. Carbondioxide gas is used as extracting solvent in
- (A) Microwave assisted extraction (B) Ultrasonication
~~(C) Super critical fluid extraction~~ (D) Counter current extraction
(E) Answer not known

106. The method of extraction of volatile oil by digestion in melted fat is known as
- (A) eucelle (B) distillation
~~(C) enfleurage~~ (D) expression
(E) Answer not known
107. Artemisin is a sesquiterpene lactone with an _____ moiety.
- (A) indole (B) epoxide
~~(C) endoperoxide~~ (D) hydrocarbon
(E) Answer not known
108. The therapeutic use of reserpine is
- (A) anticancer (B) purgative
~~(C) antihypertensive~~ (D) antimalarial
(E) Answer not known
109. The aglycone part of rutin is
- ~~(A) quercetin~~ (B) rutinocide
(C) serpentine (D) sitosterol
(E) Answer not known
110. Santonica is the synonym of
- (A) Sandalwood (B) Dioscorea
(C) Taxus ~~(D) Artemisia~~
(E) Answer not known

111. Diferuloylmethane is otherwise known as
(A) Citral (B) Rutin-I
~~(C) Curcumin-1~~ (D) Turmerone-1
(E) Answer not known
112. Musabbar is the synonym of
(A) Pale catechu (B) Colophony
(C) Belladonna ~~(D) Aloes~~
(E) Answer not known
113. Sweet taste of liquorice is due to the presence of
(A) liquiritin (B) isoliquiritin
~~(C) glycyrrhizin~~ (D) flavanoids
(E) Answer not known
114. Cinnamic acid is absent in
(A) Sumatra benzoin (B) Styrax benzoin
(C) Styrax paralleloneunus ~~(D) Siam benzoin~~
(E) Answer not known
115. Gambier fluorescin is present in
(A) Black catechu (B) Asafoetida
~~(C) Pale catechu~~ (D) Colophony
(E) Answer not known
116. Pyrrolidine and piperidine ring is present in
~~(A) Atropine~~ (B) Quinidine
(C) Diosgenin (D) Aloin
(E) Answer not known

117. Dragendroff's reagent used for the detection of alkaloids contains
- (A) Potassium bismuth iodide
 - (B) Potassium mercuric iodide
 - (C) Picric acid
 - (D) Potassium nitrate
 - (E) Answer not known
118. Asafoetida contains 40-65 percentage of
- (A) gum
 - (B) volatile oil
 - (C) resin
 - (D) tannin
 - (E) Answer not known
119. Addition of ferric chloride and dilute hydrochloric acid in modified Born Trager's Test is to bring
- (A) reduction
 - (B) reductive hydrolysis
 - (C) oxidative hydrolysis
 - (D) decarboxylation
 - (E) Answer not known
120. Choose the right statement among the following about digitalis leaves
1. It should contain not more than 5% of moisture.
 2. The leaves should be dried above 60°C
 3. It contains a sugar digitoxase
 4. It belongs to the family Beriberidaceae
- (A) 1 and 2 are correct
 - (B) 1 and 3 are correct
 - (C) 2 and 3 are correct
 - (D) 3 and 4 are correct
 - (E) Answer not known

121. Which of the following is used in the treatment of Arsenic Poisoning?
(A) ~~Dimercapol~~ (B) Calcium Disodium edetate
(C) Desferioxamine (D) Deferiprone
(E) Answer not known
122. On ingestion of following acute poisoning leads to severe haemorrhagic gastroenteritis and acute tubular necrosis
(A) Lead Poisoning (B) ~~Mercury Poisoning~~
(C) Arsenic Poisoning (D) Iron Poisoning
(E) Answer not known
123. Which of the following to be supplemented with methotrexate?
(A) ~~Folinic acid rescue~~ (B) Vit. B_{12}
(C) Vit. B_6 (D) Vit. B_1
(E) Answer not known
124. Tumour lysis syndrome usually occurs in _____ and _____.
(A) Myelomas and Neuroblastomas
(B) ~~Leukaemias and Lymphomas~~
(C) Adenomas and Carcinomas
(D) Melanomas and Lymphomas
(E) Answer not known
125. It is a first choice drug for early Haemolympathic African Trypanosomiasis
(A) Eflornithine (B) Pentamidine
(C) ~~Suramin~~ (D) Melarsoprol
(E) Answer not known

126. The following one of the drug which belongs to primarily bacteriostatic
- (A) Penicillins
(B) ~~Erythromycin~~
(C) Vancomycin
(D) Cotrimoxazole
(E) Answer not known
127. Prominent indications of cefotaxime is
- (A) ~~Meningitis~~
(B) Skin and soft tissue infection
(C) Bronchitis
(D) Stomatitis
(E) Answer not known
128. The following one of the dose of Aspirin irreversibly inhibits TXA_2 production
- (A) 75-200 mg
(B) 75-150 mg
(C) ~~75-100 mg~~
(D) 75-300 mg
(E) Answer not known
129. Sumatriptan and its congeners are selective agonists at _____ receptor.
- (A) 5-HT_{1A} receptor
(B) 5-HT_{1F} receptor
(C) ~~5-HT_{1D} receptor~~
(D) 5-HT_{2A} receptor
(E) Answer not known
130. The following peptide leukotrienes which are potent bronchocnstrictors and are primary component of slow reacting substance of anaphylaxis
- (A) LTA₄ and LTB₄
(B) ~~LTD₄ and LTC₄~~
(C) LTB₄ and LTC₄
(D) LTC₄ and LTE₄
(E) Answer not known

131. Colchicine is an anti-gout drug which
- (A) preventing granulocyte migration into the inflamed joint
 - (B) inhibit urate crystal phagocytosis
 - (C) inhibit inflammation and pain
 - (D) inhibit chemotactic migration of Leukocytes into the inflamed joint
 - (E) Answer not known
132. The following dose of Prednisolone is the standard DMARD treatment in moderate rheumatoid arthritis
- (A) 7.5 mg/day
 - (B) 5.5 mg/day
 - (C) 3.5 mg/day
 - (D) 1.5 mg/day
 - (E) Answer not known
133. The following one of the bisphosphonate drug which is more preferred for treating Paget's disease and for treating ectopic ossification
- (A) Alendronate
 - (B) Risedronate
 - (C) Ibandronate
 - (D) Etidronate
 - (E) Answer not known
134. Which antithyroid drug is preferred in pregnancy?
- (A) Propylthiouracil
 - (B) Iodine
 - (C) Carbimazole
 - (D) Methimazole
 - (E) Answer not known

135. Dutasteride which belongs to

- (A) Competitive inhibitor of both types of 5- α reductase (I and II)
- (B) Androgen receptor antagonist
- (C) α_1 -adrenoceptor antagonist
- (D) 5- α reductase inhibitor
- (E) Answer not known

136. Drugs which inhibit thyroid hormone production

- (A) Perchlorates
- (B) ^{131}I Iodine
- (C) Propylthiouracil
- (D) Ipanoic acid
- (E) Answer not known

137. Ultra short acting Insulin analogue

- (A) Insulin aspart
- (B) Crystalline Zinc Insulin
- (C) Insulin glargine
- (D) Isophane insulin
- (E) Answer not known

138. Drug of choice for Gastroesophageal reflux disease

- (A) Proton Pump Inhibitor
- (B) Antacids
- (C) H_2 receptor antihistamine
- (D) Ulcer protectives
- (E) Answer not known

139. The following one of the drug which is an appetite stimulant and has been used to improve feeding in Cachectic/AIDS patients

- (A) Dexamethasone
- (B) Tetrahydro cannabinol
- (C) Diazepam
- (D) Dronabinol
- (E) Answer not known

140. Non specific antidiarrhoeal drugs which has antimotility effect
- (A) Racecadotril (B) ~~Loperamide~~
(C) Ispaghula (D) Octreotide
(E) Answer not known
141. In NMR, spin quantum number is 1 when
- (A) Mass number is odd and atomic number is odd
(B) Mass number is even and atomic number is odd
(C) ~~Both mass and atomic numbers are even numbers~~
(D) Mass number is odd and atomic number is even
(E) Answer not known
142. Bathochromic shift is also known as _____.
- (A) Blue Shift (B) Green Shift
(C) Yellow Shift (D) ~~Red Shift~~
(E) Answer not known
143. The reagent used in the colorimetric determination of Fe^{2+} is
- (A) Dithizone (B) Thiourea
(C) Potassium Periodate (D) ~~1, 10-Phenanthroline~~
(E) Answer not known
144. The radiation source used in atomic absorption spectrometer is
- (A) Nernst glower (B) ~~Hollow cathode lamp~~
(C) Tungsten lamp (D) Globalar
(E) Answer not known

145. The shift of absorption towards shorter wavelength is called
(A) Hyperchromic shift (B) Bathochromic shift
(C) Hypochromic shift ~~(D) Hypsochromic shift~~
(E) Answer not known
146. All of these are factors affecting fluorescence intensity except
(A) Concentration (B) Temperature
~~(C) Pressure~~ (D) Viscosity
(E) Answer not known
147. In Gas-Liquid Chromatography the principle involved is _____.
(A) Adsorption (B) Absorption
(C) Occlusion ~~(D) Partition~~
(E) Answer not known
148. A strong acid cation exchange resin has _____ group attached to polymeric matrix.
~~(A) SO₃H~~ (B) COOH
(C) Cl⁻ (D) OH⁻
(E) Answer not known
149. The volume of carrier gas required to elute one-half of the compound from the column is known as _____.
~~(A) Retention volume~~ (B) Adjusted retention volume
(C) Net retention volume (D) Specific retention volume
(E) Answer not known

150. The time of emergence of the peak maximum of a component after injection is known as _____.
- (A) Net retention time (B) Adjusted retention time
 (C) Retention time (D) Specific retention time
(E) Answer not known
151. Column efficiency is expressed quantitatively by the number of
- (A) solvents (B) mobile phases
 (C) theoretical plates (D) peaks
(E) Answer not known
152. Counter Current Distribution (CCD) technique is used in
- (A) Adsorption Chromatography
 (B) Partition Chromatography
(C) Ion exchange Chromatography
(D) Gel-Filtration Chromatography
(E) Answer not known
153. In HPLC, the mode of elution is _____ when only one particular solvent or mixture is pumped throughout the analysis.
- (A) Isocratic (B) Gradient
(C) Isotonic (D) Isoosmotic
(E) Answer not known
154. Thioglycerol is used to mask _____.
- (A) Barium (B) Calcium
 (C) Copper (D) Magnesium
(E) Answer not known

155. The primary standard for standardization of perchloric acid is _____.

- (A) Potassium hydrogen phthalates
- (B) Sodium carbonate
- (C) Arsenic trioxide
- (D) Potassium chromate
- (E) Answer not known

156. _____ is used as indicator electrode.

- (A) Mercury sulphate electrode
- (B) Calomel electrode
- (C) Glass electrode
- (D) Silver-Silver Chloride electrode
- (E) Answer not known

157. EDTA forms _____ complexes with metal ions.

- (A) 1 : 3
- (B) 1 : 2
- (C) 2 : 1
- (D) 1 : 1
- (E) Answer not known

158. The process of impurity precipitates getting associated with the precipitate being separated is called _____.

- (A) Post-precipitation
- (B) Nucleation
- (C) Co-precipitation
- (D) Crystallisation
- (E) Answer not known

159. _____ is a sequestering agent.
- (A) Potassium cyanide ~~(B)~~ EDTA
 (C) Sodium acetate (D) Calcium sulphate
 (E) Answer not known
160. Which of the following determination is not possible with gravimetric analysis?
- (A) Chloride as Silver Chloride
 (B) Aluminium as Aluminium Oxide
 (C) Calcium as Oxalate
~~(D)~~ Silver in Silver alloy
 (E) Answer not known
161. Which alcohol is converted to ketone (acetone) in Oppanuer Oxidation?
- (A) Primary Alcohol ~~(B)~~ Secondary Alcohol
 (C) Tertiary Alcohol (D) Quarternary Alcohol
 (E) Answer not known
162. Carbonyl compounds are converted to hydrocarbons by
1. Clasién reaction
 2. Clemmensen reduction
 3. Birch reduction
 4. Wolff Kishner reduction
- (A) Only 2 is correct (B) Only 1 is correct
~~(C)~~ Both 2 and 4 are correct (D) Both 1 and 3 are correct
 (E) Answer not known

163. Cyclic ketones undergo ring expansion when treated with hydrazoic acid, the reaction being named as _____.

1. Schmidt rearrangement
2. Beckmann rearrangement
3. Wittig rearrangement
4. Claisen rearrangement

- (A) Only 2 is correct ~~(B) Only 1 is correct~~
(C) Both 1 and 2 are correct (D) Both 1 and 4 are correct
(E) Answer not known

164. The naming reaction in which conversion of ketones to amides using hydrazoic acid takes place is

- (A) Birch reduction ~~(B) Schmidt reaction~~
(C) Beckmann rearrangement (D) Schotten-Baumann reaction
(E) Answer not known

165. 0.1 M Sodium hydroxide is standardised using which of the following?

- ~~(A) Potassium hydrogen phthalate~~
(B) Potassium oxalate
(C) Sodium carbonate
(D) Potassium carbonate
(E) Answer not known

166. 0.1 M Sodium nitrite is standardized using

- (A) Sulphuric acid
~~(B) Sulfanilic acid~~
(C) Potassium hydrogen phthalate
(D) Potassium oxalate
(E) Answer not known

167. Magaldrate is a combination of
- (A) Magnesium and aluminium oxide
 - (B) Magnesium and calcium
 - ~~(C)~~ Aluminium and Magnesium hydroxide
 - (D) Aluminium and Sulphate sodium
 - (E) Answer not known
168. Sodium fluoride is assayed by
- (A) Redox titration
 - ~~(C)~~ Non-aqueous titration
 - (E) Answer not known
 - (B) Complexometric
 - (D) Acid-base titration
169. Calcium hydroxide is also known as
- (A) Shell stone
 - (C) Quick lime
 - (E) Answer not known
 - (B) Limestone
 - ~~(D)~~ Slaked lime
170. Milk of magnesia is prepared from
- (A) MgO and NaOH
 - (B) Heavy MgO, MgSO₄ and Ca(OH)₂
 - ~~(C)~~ MgSO₄ and NaOH
 - (D) MgSO₄ and MgCl
 - (E) Answer not known

171. The presence of silver as impurity in bismuth salt is derived from which of the following?
- (A) Decomposed product
 - (B) Metabolic product
 - ~~(C)~~ Laid down process of manufacture
 - (D) From construction of plant
 - (E) Answer not known
172. In the limit test for sulphate what is the purpose of using ethanol
- (A) increases sensitivity of test
 - (B) increases solubility product of BaSO_4
 - ~~(C)~~ prevents super saturation
 - (D) enhances super saturation
 - (E) Answer not known
173. The barium sulphate reagent contains
- ~~(A)~~ Barium chloride, sulphate-free alcohol and potassium sulphate
 - (B) Calcium sulphate, ethanol, sodium chloride
 - (C) Barium sulphate, methanol, Sodium chloride
 - (D) Sodium acetate, potassium chloride, methanol
 - (E) Answer not known
174. _____ is a measure of how close the experimental values are to each other.
- ~~(A)~~ Precision
 - (B) Range
 - (C) Accuracy
 - (D) Ruggedness
 - (E) Answer not known

175. In medicines, the frequently used unit of Radioactivity is
- (A) Meter
 - ~~(B) Becquerel~~
 - (C) Newton
 - (D) Newton meter
 - (E) Answer not known
176. Cobalt 57 and Cobalt 58 radio isotopes are used in diagnosis of which of the following?
- (A) Liver Cirrhosis
 - (B) Gout
 - ~~(C) Pernicious anemia~~
 - (D) Polycythemia
 - (E) Answer not known
177. Radioactivity can be deducted by use of instruments like
1. G-M counters
 2. Proportional counters
 3. Mass spectrometer
 4. Photographic plate and X-ray
- ~~(A) 1 and 2~~
 - (B) 3
 - (C) 3 and 4
 - (D) 1 and 3
 - (E) Answer not known
178. Atoms which have same mass number but different atomic number are called
- (A) Isotopes
 - ~~(B) Isobars~~
 - (C) Isotones
 - (D) Isomoles
 - (E) Answer not known

179. Young's Rule calculates the paediatric dose of drugs in relation to
- (A) Body weight of the child
 - (B) Body surface area of the child
 - (C) Height of the child
 - ~~(D) Age of the child~~
 - (E) Answer not known
180. The difference in potential between the surface of the tightly bound layer and the electroneutral region of the solution is defined as
- (A) Sediment volume
 - ~~(B) Zeta potential~~
 - (C) Brownian movement
 - (D) Dispersion of particles
 - (E) Answer not known
181. The solution with same iso-osmotic with blood plasma is known as
- (A) Hypotonic
 - ~~(B) Isotonic~~
 - (C) Hypertonic
 - (D) Paratonic
 - (E) Answer not known
182. The common size reduction method in the pharmaceutical industry using compression is _____.
- (A) The Ball mill
 - ~~(B) The Roller mill~~
 - (C) The Cutter mill
 - (D) The fluid energy mill
 - (E) Answer not known
183. The following equipment used for concentration of insulin and liver extracts are
- (A) Evaporating stills
 - ~~(B) Forced circulation evaporations~~
 - (C) Evaporating pans
 - (D) Short tube evaporator
 - (E) Answer not known

184. The maximum % of volume that can be occupied by dispersed phase in emulsion, if emulsion globules are perfect sphere
- (A) 70% v/v (B) ~~74% v/v~~
(C) 80% v/v (D) 65% v/v
(E) Answer not known
185. Certain suspension with a high percentage of dispersed solids exhibit an increase in resistance to flow with increasing rates of shear such systems actually increase in volume when sheared and are termed as
- (A) Thixotropic (B) ~~Dilatant~~
(C) Plastic (D) Newtonian
(E) Answer not known
186. The following diameters are related to equivalent spherical diameter except
- (A) Surface diameter (B) Projected diameter
(C) Stokes diameter (D) ~~Reynolds diameter~~
(E) Answer not known
187. Fisher subsieve sizer is used to determine _____.
- (A) ~~Surface area~~ (B) Surface number
(C) Volume number (D) Particle shape
(E) Answer not known
188. The solids content of parenteral suspensions is usually between _____ except for insoluble forms of penicillin.
- (A) ~~0.5 and 5.0% (w/v)~~ (B) 0.1 and 0.5% (w/v)
(C) 50 and 75% (w/v) (D) 75 and 80% (w/v)
(E) Answer not known

194. The USP specifications for light-resistant containers require the glass to provide protection against _____ angstroms of light.
- (A) 1000 to 2000 angstroms (B) 0100 to 0900 angstroms
(C) 2000 to 2800 angstroms ~~(D) 2900 to 4500 angstroms~~
(E) Answer not known
195. The injections given in same area leads to
- (A) Lipodystrophy ~~(B) Encephalopathy~~
(C) Allergy (D) Hyperlipidemia
(E) Answer not known
196. The acronym API stands for (as per 21 CFT part 211)
- (A) Available Pharmaceutical Ingredient
~~(B) Active Pharmaceutical Ingredient~~
(C) Active Pharmacological Ingredient
(D) Active Pharmacological Intermediate
(E) Answer not known
197. The head quarters the numbers of zonal offices, sub-zonal offices, port offices and laboratories of CDSCO are
- ~~(A) Delhi and 6, 4, 13, 7~~ (B) Bombay and 4, 6, 7, 13
(C) Chennai and 6, 4, 13, 7 (D) Kolkatta and 4, 6, 13, 7
(E) Answer not known

198. Vaccines are stored in

- (A) Cool temp. (8-25°C)
- (B) Freezing temp (< 0°C)
- (C) Cold storage (2 to 10°C)
- (D) Room temp. (temperature prevailing in working area)
- (E) Answer not known

199. The enzyme present in the tears is

- (A) Lysozyme
- (B) Monozyme
- (C) Lactozyme
- (D) Lyozyme
- (E) Answer not known

200. Statement A :

In Alzet Pump, the drug reservoir is a liquid solution inside an impermeable collapsible polyester bag coated with a layer of an osmotically active salt.

Statement B :

In Alzet Pump, as the salt dissolves, it creates an osmotic pressure gradient and the drug compartment is reduced in volume, forcing the drug solution out.

- (A) Statement A and B are true
- (B) Statement A is true but B is false
- (C) Statement A and B are false
- (D) Statement A is false but B is true
- (E) Answer not known