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## GPAT 2020 Question Paper with Answer Key

Graduate Pharmacy Aptitude Test conducted by NBEMS

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## GPAT QUESTION PAPER 2020 WITH ANSWER KEY

1. Relative sweetness of sucrose, to saccharin :

- (a) 1: 200      (b) 1: 500      (c) 1: 100      (d) 1: 400

2. Following statement is more accurate with respect to limitations of Arrhenius relationship for stability prediction :

- (a) Order of degradation will alter at higher temperature  
(b) Equal moisture concentrations will be mentioned at different temperatures  
(c) Less relative humidity and oxygen solubility at higher temperature  
(d) Same degradation mechanisms may predominate at different temperatures

3. Lakes of Dyes available commercially contain maximum upto.....of pure dye.

- (a) 15%      (b) 10%      (c) 25%      (d) 50%

4. Type II glass containers are

- (a) Suitable for alkaline solutions  
(b) Most inert glasses and shows high hydrolytic resistance  
(c) Suitable for most acidic and neutral aqueous preparations  
(d) Suitable for non-aqueous preparations

5. Dimethyl sulfoxide acts as penetration enhancer for topical formulations by

- (a) Increasing solubility      (b) Denaturing proteins  
(c) Increasing transepidermal loss      (d) Altering solvent nature of membrane

6. As per European Pharmacopoeia technical guide, substance stored at 25°C for 24 hours at 80% RH, called very hygroscopic when increase in weight is

- (a) 0.2% w/w and <15% w/w      (b) > 0.2% w/w and < 20% w/w  
(c) > 15% w/w      (d) 0.2% w/w and < 2% w/w

7. SCHICK Test Toxin is a sterile Filtrate from a culture of

- (a) Rickettsia prowazeki      (b) Mycobacterium Diphtheriae  
(c) Coryne bacterium Diphtheriae      (d) Actinobacillus mallei

8. Violin gut is obtained from intestine of

- (a) Horse (b) Cat (c) Sheep (d) Camel

9. An excipient Ludipress used for liquid Dosage form is a coprocessed excipient of

- (a) PticInsi. Dextrose monohydrate + Kollidon 30  
(b) Lactose monohydrate + Kollidon 30  
(c) Lactose monohydrate + Kollidon 30 + Kollidon CL  
(d) Dextrose monohydrate + Kollidon 30 + Kollidon CL

10. Pyrogens present in containers can be destroyed by heating the containers at

- (a) 121°C for 15 mins  
(b) 121°C for 30 mins

- (c) 210°C for 4 h
- (d) 210°C for 1 h

11. In capsule making the Bloom strength of gelatin is proportional to molecular weight of the gelatin and is a measure of the;

- (a) Cohesive strength of the solvent molecules
- (b) Cohesive strength of the crosslinking that occurs between gelatin molecules
- (c) Adhesive strength of gelatin with dipping pins
- (d) Adhesive strength of gelatin with other polymer

12. Choose the wrong statement from the following with regard to Amorphous solids

- (a) Usually they are anisotropic
- (b) They tend to flow when subjected to sufficient pressure
- (c) Considered as super cooled fluids
- (d) They do not have definite melting point

13. The 'Crenulation' effect on the cell wall is caused by \_\_\_\_\_ solutions and this effect is \_\_\_\_\_.

- (a) Hypertonic; reversible
- (b) Hypotonic; reversible
- (c) Hypotonic; irreversible
- (d) Hypertonic; irreversible

14. The unequal attractive forces acting on the molecules at the surface of liquid gas interface when compared with molecular forces in the bulk of the liquid is due to:

- (a) Absence of adhesive force of attraction
- (b) Less adhesive force of attraction
- (c) Absence of cohesive force of attraction
- (d) Less cohesive force of attraction

15. Following is the important sterol in faeces formed from cholesterol by bacteria in lower intestine:

- (a) 7- $\alpha$ -Hydroxy cholesterol
- (b) Coprostanol
- (c) 7-Dehydrocholesterol
- (d) Lithocholic acid

16. According to distribution law, select the appropriate expression for the concentration of a solute when it exist as monomer in solvent A and dimer in solvent B (Assume  $C_A$  = concentration of solute in solvent A  $C_B$  = concentration of solute in solvent B  $\alpha$  = degree of dissociation)

(a)  $K = \frac{C_A}{2 \times \sqrt{C_B}}$       (b)  $K = \frac{C_A}{C_B \times (1 - \alpha)}$       (c)  $K = \frac{C_A}{C_B \times (2 - \alpha)}$       (d)  $K = \frac{C_A}{\sqrt{C_B}}$

17. The drug concentration between Minimum effective concentration (MEC) and maximum safe concentration (MSC) is called

- (a) Toxic range      (b) Therapeutic index      (c) Therapeutic ratio      (d) Therapeutic range

18. Production of Acetyl methyl carbinol can be detected by which of the following test

- (a) Voges-proskaver test      (b) Indole test      (c) Citrate utilization test      (d) Methyl red test

19. The temperature dependence and the theory of viscosity is expressed by the following

- (a) Stern-Volmer equation      (b) Arrhenius equation of chemical kinetics  
(c) Higuchi equation      (d) Gibb's equation

20. Which of the following is not a fundamental (primary) factor considered for selection of a location for the construction of pharmaceutical or chemical plant

- (a) Soil      (b) Market for products      (c) Labor supply      (d) Raw materials

21. The following gram positive bacteria species is positive for the coagulase test (a test for the ability of bacteria to cause blood plasma to clot)

- (a) *S. epidermidis*      (b) *S. aureus*      (c) *S. Saprophyticus*      (d) *S. lactis*

22. The version of GMP in India that describe requirement of factory premises for manufacture of cosmetics

- (a) schedule-M      (b) Schedule-M-III      (c) Schedule-M-II      (d) Schedule M-I

23. This fungus is also known as opportunistic pathogen, often isolated from warm-blooded animals.

- (a) *Aspergillus niger*      (b) *Penicillium notatum*      (c) *Penicillium chrysogenum*      (d) *Candida albicans*

24. Which of the following will result in very closest value to the Glomerular Filtration Rate (GFR) ?

- (a) Insulin Clearance      (b) Albumin Clearance  
(c) Measure of Blood Urea Nitrogen (BUN)      (d) Creatinine Clearance

25. While studying solid state physicochemical properties, the packing property of drug include

- (a) Heat capacity      (b) Solubility      (c) Refractive index      (d) Entropy

26. The Acidic polymers of Ribitol/Glycerol phosphate present in Gram positive microorganism are known as

- (a) Polysaccharides      (b) Teichoic acids      (c) Peptidoglycans      (d) Lysozymes

27. Increasing the proportion of the disperse phase of an emulsion by more than 60% may lead to

- (a) Cracking      (b) Frothing      (c) Phase inversion      (d) Creaming

28. The second law of thermodynamics states that 'whenever a spontaneous process takes place, it is accompanied by an increase in the total energy of the universe! The equation that satisfies the above law is :

- (a)  $\Delta S_{\text{universe}} = S_{\text{system}} + \Delta S_{\text{surrounding}}$   
(b)  $S_{\text{system}} = \Delta S_{\text{universe}} + \Delta S_{\text{surrounding}}$   
(c)  $\Delta S_{\text{universe}} = \Delta S_{\text{surrounding}} - S_{\text{system}}$   
(d)  $\Delta S_{\text{universe}} = S_{\text{system}} - \Delta S_{\text{surrounding}}$

29. The complexation of Quinine with hexyl salicylate is an example of absorption by

- (a) Convective transport      (b) Facilitated transport      (c) Penocytosis      (d) Ion pair transport

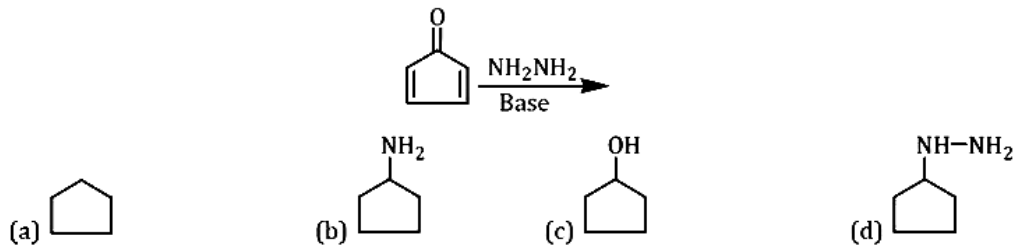
30. The polymorphs exhibit the following different properties Except :

- (a) X-ray crystal and diffraction patterns      (b) Melting points  
(c) Solubilities      (d) Chemical structures

31. Method of Study Drug Distribution pattern is :

- (a) Mass spectrophotometry      (b) Nuclear magnetic resonance  
(c) Flourimetry      (d) UV-visible spectrophotometry

32. Product of the following



reaction:

33. Which of the following powder shows the greatest degree of dustibility

- (a) Talcum powder (b) Lycopodium powder (c) Fine charcoal (d) Potato Starch

34. The dispersion of coarse material by shearing in a narrow gap between a static cone and a rapidly rotating cone is caused by

- (a) Colloid Milk (b) Electrical Dispersion (c) Peptisation (d) Ultrasonic Irradiation

35. When the concentration of an aqueous sodium chloride solution has the same colligative properties as the solution in question, the value so obtained is known as

- (a) Normality (b) Isotonicity value (c) Molarity (d) Molality

36. When adhesive attractions between molecules of different species exceeds cohesive attraction between like molecules, the deviation according to Raoult's law is said to be

- (a) Partial (b) Positive (c) Neutral (d) Negative

37. Centistoke is the CGS unit for the following property

- (a) Surface tension (b) Coefficient of viscosity (c) Fluidity (d) Kinematic viscosity

38. Molar heat capacity of a system is defined as :

- (a) The amount of heat required to raise temperature of one mole of the system by one Kelvin  
(b) The amount of heat required to decrease temperature of one mole of the system by one Kelvin  
(c) The amount of heat required to decrease temperature of one mole of the system by one Fahrenheit  
(d) The amount of heat required to raise temperature of one mole of the system by one Fahrenheit

39. When a solid forms a gel more readily when gently shaken or otherwise sheared than when allowed to form the gel while the material is kept at rest, the phenomenon is known as

- (a) Thixotropy (b) Rheopexy (c) Negative rheopexy (d) Anti thixotropy

40. In the process of Extraction, ethanol is used as a solvent for

- (a) Sucrose (b) Waxes (c) Alkaloids (d) GUMS

41. Human Serum Albumin has a molecular weight of

- (a) 34,000 (b) 65,000 (c) 44,000 (d) 59,000

42. Riboflavin, chemically is

- (a) 6,7-dimethyl isoalloxazine (b) 6,7-diethyl isoalloxazine  
(c) 8,9-dimethyl isoalloxazine (d) 8,9-diethyl isoalloxazine

43. Burow's solution is

- (a) Aluminium acetate solution strong (b) Calcium phosphate solution strong

- (c) Ammonium acetate solution strong (d) Calcium hydroxide solution

44. Drug products that contain the same therapeutic moiety but as different salts, esters or complexes are called as

- (a) Therapeutic equivalents (b) Pharmaceutical equivalents  
(c) Pharmaceutical alternative (d) Therapeutic alternatives

45. When six suppositories containing 20 percent of morphine hydrochloride in Theobroma oil are to be prepared, which of the following statement is correct ? (Given : Displacement value of morphine hydrochloride is 1.5; weight of each suppository is 1 g)

- (a) The displacement value of morphine hydrochloride is to be considered  
(b) The displacement values of both morphine hydrochloride and Theobroma oil are to be considered  
(c) The displacement value of morphine hydrochloride is to be ignored  
(d) The displacement value of Theobroma oil is to be considered

46. Following amino acid does not exhibit optical isomerism:

- (a) Serine (b) Alanine (c) Glycine (d) Leucine

47. Fraction of administered dose (which may be -n form of an ester or salt) of active drug is termed as

- (a) Activity factor (b) Formulation factor (c) Intrinsic factor (d) Salt factor

48. If two monosaccharides differ in their structure around a single carbon atom, they are called as

- (a) Epimers (b) Dimers (c) Trioses (d) Trimers

49. Which of the following is the example of "Invert Sugar"

- (a) Sucralose (b) Lactulose (c) Lactose (d) Sucrose

50. Which of the following groups stabilizes carbocation in electrophilic aromatic substitution

- (a) -CN, -SO<sub>3</sub>H (b) -COOH, -CHO (c) -NH<sub>2</sub>, -OH (d) —N(CH<sub>3</sub>)<sub>3</sub><sup>+</sup>, —NO<sub>2</sub>

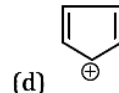
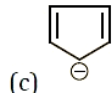
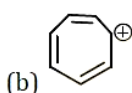
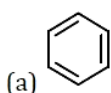
51. The mechanism of antiepileptic effect of Lamotrigine is by :

- (a) Inhibition of glutamate release (b) Blockade of NMDA receptors  
(c) Inhibition of Na<sup>+</sup> channels (d) Inhibition of Ca<sup>++</sup> channels

52. Closeness of a measured value to the true or accepted value is known as

- (a) Accuracy (b) Deviation (c) Precision (d) Bias

53. Which of the following is Anti aromatic



54. Globar source in infra-red spectrophotometer is

- (a) Silicon carbide rod (b) Rhodium wire heated in ceramic  
(c) Tungsten filament (d) Nichrome wire

55. Cotrimoxazole is combination of trimethoprim with sulfamethoxazole. Which of the following statement is correct about Cotrimoxazole?

- (a) Cotrimoxazole is contraindicated during pregnancy.
- (b) Most effective ratio of trimethoprim: sulfamethoxazole in plasma is 20:1.
- (c) Trimethoprim : sulfamethoxazole are administered in a dose ratio of 5 :1 to achieve optimal synergistic effect.
- (d) Cotrimoxazole is ineffective in treating respiratory tract infections.

56. Ion trapping is an important process in drug distribution with potential therapeutic benefit. It is defined as <http://www.xamstudy.com>

- (a) An acidic drug will accumulate on the more basic side of the membrane and a basic drug on more basic side.
- (b) An acidic drug will accumulate on the more acidic side of the membrane and a basic drug on more basic side.
- (c) An acidic drug will accumulate on the more basic side of the membrane and a basic drug on more acidic side.
- (d) An acidic drug will accumulate on the more acidic side of the membrane and a basic drug on more acidic side.

57. Identify the diuretic which causes hyperuricemia, tend to raise serum calcium and also causes magnesium depletion

- (a) Acetazolamide      (b) Furosemide      (c) Mannitol      (d) Chlorthiazide

58. The Nitration of quinoline gives a mixture of

- (a) 3-nitro-and 6-nitroquinolines      (b) 2-nitro-and 7-nitroquinolines
- (c) 5-nitro-and 8-nitroquinolines      (d) 2-nitro-and 4-nitroquinolines

59. The specific reagents used in skrap synthesis of quinoline are

- (a) Benzaldehyde, aniline, sulfuric acid and Nitrobenzene
- (b) Glycerol, aniline, sulfuric acid and Nitrobenzene
- (c) Aminoethanal and Nitrobenzene
- (d) Glycerol, Acetal of aminoethanal and Nitrobenzene

60. Mitomycin C is an antibiotic isolated from

- (a) Streptomyces peucetius      (b) Streptomyces verticillus
- (c) Streptomyces antibioticus      (d) Streptomyces caespitosus

61. This 4-amino quinoline antimalarial drug marketed as R, S isomer, has two trifluoromethyl moieties at position 2' and 8' and no electronegative substituent either at 6' or 7' positions is

- (a) Mefloquine      (b) Chloroquine      (c) Primaquine      (d) Amodiaquine

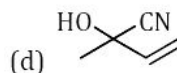
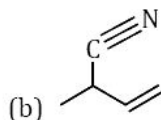
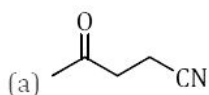
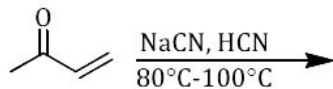
62. Which one is NOT an opioid receptor

- (a) Gamma      (b) Kappa      (c) Mu      (d) Delta

63. One of the following statement with respect to carbachol is NOT correct Identify:

- (a) It can be administered orally
- (b) It possess both muscarinic and nicotinic action
- (c) It is more susceptible to hydrolysis as compared to acetylcholine
- (d) The amino group decreases electrophilicity of the carbonyl group

64. What is the product of the following reaction?



65. Which three of the following are physiological effects of ganglionic stimulating agents

- (A) Stimulation of sympathetic ganglia and the adrenal medulla leading to cardiovascular responses
- (B) Initial transient stimulation and then a more persistent depression of all autonomic ganglia
- (C) Marked depression of CNS leading to analgesia.
- (D) Chronic exposure causes a marked increase in the density of nicotinic receptors contributing tolerance and dependence.
- (E) Combined activation of parasympathetic ganglia and cholinergic nerve ending by nicotine results in increased tone and motor activity of the bowel.
- (F) Inhibition of salivary and bronchial secretions that is followed by stimulation.

- (a) (A), (C) and (D)
- (b) (B), (D) and (F)
- (c) (B), (C) and (E)
- (d) (A); (B) and (D)

66. Two pore domain K<sup>+</sup> ions channels are opened by which one of the following categories of anaesthetic

- (a) Barbiturates
- (b) Benzodiazepines
- (c) Opioid analgesics
- (d) Halogenated inhalation anaesthetic

67. Which of the following rearrangement involves migration of a group from carbon to electron deficient nitrogen

- (a) Wilgerodt rearrangement
- (b) Baeyer villiger, rearrangement
- (c) Pinacol-pinacolone rearrangement
- (d) Beckmann rearrangement

68. The mechanism by which fluorides inhibit dental caries is

- (a) By increasing susceptibility to acid
- (b) By increasing the sensitivity of tooth enamel
- (c) Decreased acid solubility of enamel
- (d) Increased acid solubility of enamel

69. The solvent used in NMR spectroscopy with the highest level of deuteration among these is :

- (a) Deuterioacetone
- (b) Deuterium oxide
- (c) Deuteriomethanol
- (d) Deuteriochloroform



70. The weakly acidic nature of warfarin is attributed to the presence of  
(a) Methylene protons on substitution at 3rd position  
(b) Proton of hydroxyl group at 4th position  
(c) Proton on chiral carbon  
(d) Aromatic protons of coumarin ring
71. Which of the following drugs possesses Antiplatelet effects  
(a) Erythropoietin (b) Urokinase (c) Desmopressin (d) Clopidogrel
72. Walden inversion or complete reversal of stereochemistry occurs in one of the following substitution reaction  
(a) S<sub>N</sub>Ar reactions (b) S<sub>N</sub>i reaction (c) S<sub>N</sub>2 reactions (d) S<sub>N</sub>1 reactions
73. Antifungal agent 5-fluorocytosine is converted to its active metabolite 5-fluorouracil by one of the following fungal enzyme  
(a) Cytosine deacetylase (b) Cytosine reductase  
(c) Cytosine demethylase (d) Cytosine deaminase
74. Propanone and 2-hydroxy propene are  
(a) Position isomers (b) Rotamers (c) Chain Isomers (d) Tautomers
75. The principle of liquid-liquid extraction is  
(a) Partition (b) Solubility (c) Adsorption (d) Separation
76. When an electron with charge  $1.60 \times 10^{-19}$  coulombs is moved through a potential difference of 1 volt, the energy expended or released is called as
77. An aldopentose can be converted into aldohexose by :  
(a) Ruffs degradation method (b) Wohls method  
(c) Killani-Fischer synthesis (d) Hoffmann degradation method
78. Hydrated proton is called  
(a) Water proton (b) Hydronium ion (c) Roxonium ion (d) Proton pump
79. What is the approximate chemical shift ranges for protons attached to aldehydic groups?  
(a) 4-8  $\delta$  (b) 9.5 - 10.0  $\delta$  (c) 6 - 7.9  $\delta$  (d) 1.5 - 3.5  $\delta$
80. The condensation of an active methylene compound with formaldehyde and an amine to form  $\beta$ -amino carbonyl compound is known as  
(a) Mannich reaction  
(b) Knoevenagel condensation  
(c) Stobbe condensation  
(d) Beckmann rearrangement

81. Meloxicam belongs to which class of Non-steroidal Anti-inflammatory Drugs (NSAIDs) (a) Preferential cox-2 inhibitor  
(b) Selective Cox-1 inhibitor  
(c) Preferential Cox-1 inhibitor  
(d) Selective Cox-2 inhibitor
82. Which one of the following is not the property of osmotic diuretics  
(a) Undergo limited reabsorption by the renal tubule  
(b) Are relatively inert pharmacologically  
(c) They inhibit carbonic anhydrase  
(d) Freely filtered at the glomerulus
83. Electron releasing groups stabilizes free radicals by  
(a) Positive inductive ( + I) effect                      (b) Negative mesomeric ( — m) effect  
(c) Positive mesomeric ( +m) effect                      (d) Negative inductive ( -I) effect
84. The principle of gas-liquid chromatography is  
(a) Partition chromatography                      (b) Affinity chromatography  
(c) Adsorption chromatography                      (d) Ion exchange chromatography
85. The heterocyclic nucleus present in nitrofurantoin are  
(a) 3-nitro furan and imidazole 2, 4-dione  
(b) 2-nitro furan and imidazoline-2-one  
(c) Furan and pyrrole  
(d) 2-nitro furan and imidazole 2, 4-dione
86. d-tubocurarine produces skeletal muscle relaxation by inhibiting  
(a) Ganglionic nicotinic receptors  
(b) Muscurinic receptors  
(c) Nicotinic receptors in neuromuscular junction  
(d) alpha-adrenergic receptors
87. Which of the following is not one of the triade effects of adrenaline leading to rise in blood pressure  
(a) A direct myocardial stimulation that increases the strength of ventricular contraction  
(b) An increased heart rate (positive chronotropic action)  
(c) Vasoconstriction in many vascular bed specially in precapillary resistance vessels of skin  
(d) Stimulation of presynaptic alpha-2 adrenoreceptor leading to increase sympathetic tone Section : Pharmacognosy
88. " Which one of the following is not the biochemical marker of all death?  
(a) Phospholipase (b) Creatine kinase (c) Lipase (d) Amylase
89. In the transplant rejection the clinical features of graft-versus-host reaction includes following-Except  
(a) Dermatitis, diarrhoea

- (b) Fever, weight loss
- (c) Intestinal malabsorption
- (d) Rheumatoid arthritis

90. Which one of the following statement is true for cancer cells

- (a) Oncoproteins produced by cancer cells act a neighboring cells
- (b) Cancer cells require stimulation by growth factors (c) Cancer cells are highly sensitive to growth inhibitory signals
- (d) Cancer cells produce Oncoproteins in the absence of growth factors or external stimuli

91. Rosacea is a skin condition that affect :

- (a) Teenage people
- (b) Old age people
- (c) Only woman
- (d) Adults between the age of 30 - 60

92. A typical long bone consists of following parts except

- (a) The diaphysis (b) The trabeculae (c) The epiphyses (d) The periosteum

93. Which of the following Neurotransmitter is formed on demand and act immediately

- (a) Acetylcholine (b) Histamine (c) Nitric oxide (NO) (d) Adrenaline

94. In one of the following situations metabolic acidosis does not occur

- (a) Uncontrolled diabetes mellitus
- (b) Therapeutic administration of acetazolamide
- (c) Chronic renal failure
- (d) Production of less amount of lactic acid

95. Which one of the following is a organ specific (localized) autoimmune disease

- (a) Grave's disease (b) Scleroderma (c) Polyarteritis nodosa (d) Rheumatoid arthritis

96. One of the following is not a chemical or histochemical change that occurs in infarction of heart

- (a) Decrease in sodium
- (b) Glycogen depletion
- (c) Influx of calcium
- (d) Increase in lactic acid

97. Following pairs represent antibiotic and its source. Identify the correct pair

- (a) Griseofulvin: Bacteria
- (b) Polyenes: Fungi
- (c) Colistin: Fungi
- (d) Macrolides: Actinomycetes Section : Pharmacology

98. Who was the Chairman of the Drugs Enquiry Committee which was established in the year 1927?

(a) B. Mukherjee (b) Joseph Bhore (c) S.S. Bhatia (d) R.N. Chopra

99. Which one of the following is not a renal osteodystrophy (type of bone disease associated with chronic kidney disease) ?

- (a) Adynamic bone disease
- (b) Osteomalacia
- (c) Secondary hypoparathyroidism
- (d) Mixed renal osteodystrophy

100. Plants which are not differentiated into root, stem and leaves are :

- (a) Plant aginales (b) Principes (c) Thallophyte (d) Bromeliales

101. Identify antiarrhythmic drug that increases duration of QT wave and decreases the sinus rate, whereas it has no effect on QRS complex

- (a) Lidocaine (b) Amiodarone (c) Verapamil (d) Quinidine

102. As per the Drugs and Cosmetics Act-1940, if a drug is not labelled in prescribed manner it is a

- (a) Spurious drug (b) Substandard drug (c) Adulterated drug (d) Misbranded drug

103. " The major property of Ayurvedic herbs, "Rasa" indicates

- (a) Taste (b) Post digestive effect (c) Potency (d) Physicochemical properties

104. Except one of the following pairs represent drugs used in the treatment of glaucoma and their primary mechanism. Select the wrong pair from the following

- (a) Topical prostaglandin analogues: Increase aqueous outflow
- (b) Topical beta-adrenergic blockers: Decrease aqueous outflow
- (c) Topical miotics: Increase aqueous outflow
- (d) Topical carbonic anhydrase inhibitors: Decrease aqueous formation

105. Auto rhythmicity is present in which of the following group of tissues ?

- (a) Skeletal muscle and cardiac muscle
- (b) Skeletal muscle and visceral smooth muscle
- (c) Cardiac muscle and neuronal tissue
- (d) Cardiac muscle and visceral smooth muscle

106. During the denaturation cycle in polymerase chain reaction the temperature is raised to:

- (a) 90 -98°C (b) 60 - 68°C (c) 70 - 78°C (d) 80 - 88°C

107. The general purpose sodalime glass is not a suitable material for fabricating the container for

- (a) Parenteral (b) Oral solutions (c) Liquids for external use (d) Dry powders

108. In which year India signed General Agreement on Trade and Tariffs (GATT) including Trade Related Intellectual Property Rights (TRIPS)

- (a) 1996 (b) 1994 (c) 1992 (d) 1990

109. A fixed oil when added to an equal volume of ethanol; clear liquid is obtained; on cooling at 0°C and on storage for three hours, the liquid remains clear such fixed oil is identified as :

- (a) Castor Oil (b) Soyabean oil (c) Neem oil (d) Evening Primrose oil

110. In shikimic acid pathway, chorismate mutase converts chorismic acid to

- (a) Carotenoids (b) Phytol (c) Prephenate (Prephenic acid) (d) Gutta

111. Standards to be complied under D & C act -1940 for drugs imported, manufactured, stocked and exhibited for sale or distribution are covered under

- (a) Schedule M (b) Second Schedule (c) First Schedule (d) Schedule L

112. In colour test for alkaloids colchicine with mineral acids gives

- (a) Blue colour (b) Red colour (c) Yellow colour (d) Violet colour

113. Nicotine from tobacco is an alkaloid which is

- (a) Oxygen free liquid (b) Semisolid (c) Crystalline (d) Oxygen free solid

114. In solid-solid mixing, large scale continuous type of mixer is

- (a) Sigma blender
- (b) Ribbon blender
- (c) Zigzag blender
- (d) Twin shell blender

115. Which one of the following is not affected in respiratory tuberculosis

- (a) Pleural cavity (b) Mediastinal lymph nodes (c) Pericardium (d) Larynx

116. Identify phase of clinical trial having following features

- (A) Trial is conducted on about 3000 patients
  - (B) Purpose of trial is therapeutic confirmation
  - (C) Safety and tolerability is evaluated on wider scale
  - (D) Completion of trial is followed by New Drug Application (NDA) Options –
- (a) Phase - III (b) Phase - I (c) Phase - IV (d) Phase - II

117. Which of the following Microorganism is used for the effective synthesis of interferon

- (a) Micrococcus Luteus
- (b) Bacillus Subtilis
- (c) Saccharomyces Cerevisiae
- (d) Pseudomonas Aureginosa

118. In yam, the presence of, irregular arrangement of the fibres, the ends of which often project from the surface is because of

- (a) Absence of linters
- (b) Absence of combing
- (c) Presence of impurities

(d) Improper drying

119. In International organization for standardization (ISO), standard pertaining to quality system model for quality assurance in production, installation and servicing is given under

(a) ISO 9002 (b) ISO 9000 (c) ISO 9001 (d) ISO 9004

120. In Aloe the mucilage containing parenchymatous cells are present in

(a) Central parenchymatous region

(b) Pericyclic cells

(c) Epidermis

(d) Vascular bundles

121. Mechanical digestion in mouth in which food is mixed with saliva is and the movement of food from mouth into the stomach is

(a) Mastication; deglutition

(b) Deglutition; propulsion

(c) Segmentation; mastication

(d) Segmentation; propulsion

122. The Crystal form of Sulphacetamide is :

(a) Rhombohedral (b) Orthorhombic (c) Monoclinic (d) Triclinic

123. As per the definition of D and C Act, Gudakhu (rubbed against human teeth) is considered as : (a) Food (b) Drug (c) Sweeting gum (d) Cosmetic

124. The fundamental principle "Law of similia" falls under which therapy

(a) Ayurveda (b) Siddha

(c) Homoeopathy

(d) Aroma therapy

125. Dragendorff's reagent is

(a) Potassium iodate

(b) Potassium bismuth iodide

(c) Potassium mercuric iodide

(d) Potassium picrate

1 - b	16 - d	31 - a	46 - c	61 - a	76 - d	91 - d	106 - a	121 - a
2 - c	17 - d	32 - a	47 - d	62 - a	77 - c	92 - b	107 - a	122 - b
3 - d	18 - a	33 - b	48 - a	63 - c	78 - b	93 - c	108 - b	123 - d
4 - c	19 - b	34 - a	49 - d	64 - a	79 - b	94 - d	109 - a	124 - c
5 - b	20 - a	35 - b	50 - c	65 - d	80 - a	95 - a	110 - c	125 - b
6 - c	21 - b	36 - d	51 - c	66 - d	81 - a	96 - a	111 - b	
7 - c	22 - c	37 - d	52 - a	67 - d	82 - c	97 - d	112 - c	
8 - c	23 - d	38 - a	53 - d	68 - c	83 - a	98 - d	113 - a	
9 - c	24 - d	39 - b	54 - a	69 - a	84 - a	99 - c	114 - c	
10 - c	25 - c	40 - c	55 - a	70 - b	85 - d	100 - c	115 - c	
11 - b	26 - b	41 - b	56 - c	71 - d	86 - c	101 - b	116 - a	
12 - a	27 - c	42 - a	57 - d	72 - c	87 - d	102 - d	117 - c	
13 - a	28 - a	43 - a	58 - c	73 - d	88 - a	103 - a	118 - b	
14 - b	29 - d	44 - c	59 - b	74 - d	89 - d	104 - b	119 - a	
15 - b	30 - d	45 - c	60 - d	75 - a	90 - d	105 - d	120 - a	