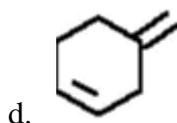
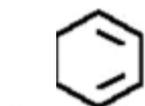
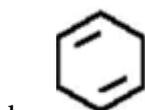
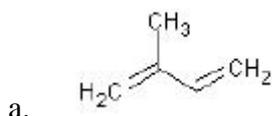


GPAT 2017 Question Paper

1. In a free radical reaction, free radicals are formed at

- (a) Initiation step
- (b) Propagation step
- (c) Termination step
- (d) Both (a) and (b)

2. Which of the following dienes can undergo Diels—Alder reaction most readily



3. Separating techniques such as gas chromatography and liquid chromatography are not appropriate for separation of amino acids. Select correct reason from the following

- (a) Amino acids are high polarity substances
- (b) Amino acids are low polarity substances
- (c) Amino acids are non polar substances
- (d) Amino acids lowly charges substances

4. When trans-2-butene is treated with bromine an anti-addition of bromine yields meso-2,3-dibromobutane. Select the correct statement regarding the reaction from the following

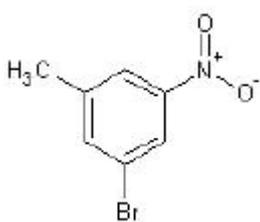
- (a) The reaction is stereo selective as well as stereo specific
- (b) The reaction is stereo selective and not stereo specific
- (c) The reaction is non stereo selective as well as non stereo specific
- (d) The reaction is stereo specific and not stereo selection

5. Reduction of imines to give amines in protic solvents can be carried out by one of the following reagents. Select the correct reagent

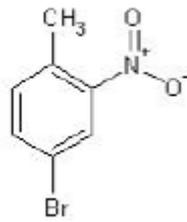
- (a) Sodium cyanoborohydride
- (b) Sodium chloride and HCl

- (c) Lithium aluminium chloride
- (d) Sodium hydride

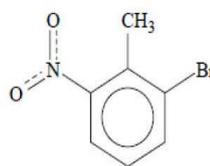
6. In the reaction of 2-nitrotoluene with bromine in presence of iron, which of the product shown below is the most abundant (major) product?



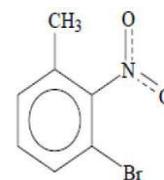
(a)



(b)



(c)



(d)

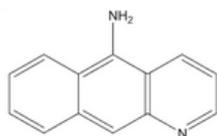
7. Which of the following cannot react as a nucleophile

- (a) $(\text{CH}_3)_4\text{N}^+$
- (b) CH_3NH_2
- (c) $(\text{CH}_3)_2\text{NH}$
- (d) $(\text{CH}_3)_3\text{N}$

8. Which of the following compounds will be oxidized by CrO_3 in acid

- (a) 4-Methylcyclohexene
- (b) 3-Methyl 3-hydroxycyclohexanone
- (c) 4,4-Dimethyl-1-methyl-1,3 -cyclohexandiol
- (d) 2-Methylcyclohexanone

9. Choose the correct name for the following heterocyclic Compound.

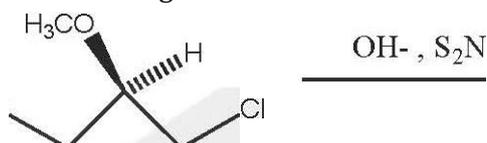


- (a) Benzo[g]quinolin-5-ylamine
- (b) 1-Aminonaphtho[b]pyridine
- (c) 1-Aminonaphtho[e]pyridine
- (d) Benzo[h]quinolin-5-ylamine

10. Which of the following reagents will reduce a disubstituted alkyne to trans-alkene

- (a) Na and NH_3
- (b) LiAlH_4
- (c) B_2H_6
- (d) Pd and H_2

11. Which of the following statement is true about following reaction



HO

- (a) The product will not have a stereocenter
- (b) The product will have R configuration
- (c) The product will not have S configuration
- (d) The reaction will happen with racemization

12. Which functional group is present in the molecule shown below



- (a) Ether
- (b) Alcohol
- (c) Ester
- (d) Amide

13. Match the following agents that cause cancer with the preferable sites for where it might cause

- | | |
|----------------------|---------------------|
| 1. Arsenic | (a) Prostate |
| 2. Benzene | (b) Angiosarcoma |
| 3. Cadmium Compounds | (c) Leukemia |
| 4. Vinyl chloride | (d) Hemangiosarcoma |
- (a) 1 - d; 2 - c; 3 - a; 4 - b (b) 1 - b; 2 - a; 3 - c; 4 - d
(c) 1 - c; 2 - d; 3 - b; 4 - a (d) 1 - a; 2 - b; 3 - d; 4 - c

14. If the pKa of lidocaine is 7.9 and pH of the infected tissue is 8.9, the fraction of drug in the ionized form will be

- (a) 90%
- (b) 1%
- (c) 10%
- (d) 99%

15. Which among the following are the salient features of Glucocorticoids

- (a) Gets combined with highly specific cytosolic glucocorticoids
- (b) They promote phagocytosis by macrophages
- (c) Releases of lytic enzymes
- (d) Increases lipid eicosanoids and prostaglandin gene

16. **The most commonly used test of sensitivity to antimicrobial agent is**

- (a) Kirby- Bauer techniques
- (b) Immuno diffusion techniques
- (c) Qudin procedure
- (d) Ouchter- Ion procedure

17. **Bulk product is defined as**

- (a) Product completing all processing stages but not necessarily final packing
- (b) A product ready for final dispatch
- (c) Raw material used for making final dosage form
- (d) A defined quantity of raw material from the same batch

18. **Product _____, _____ and Promotion are four 'P's of marketing**

- (a) Price and Place
- (b) Place
- (c) Process
- (d) Production, Process, Price, Production

19. **Insulin and thyroxin arrive at an organ / tissue / cell at the same time. Thyroxin causes an effect on the organ but insulin does not because**

- (a) The organ cell have receptors for thyroxin but not for insulin
- (b) Thyroxin is a lipid -soluble hormone and insulin is not
- (c) The target cell in the organ have up-regulated for thyroxin
- (d) Thyroxin is local hormone and insulin is a circulatory hormone

20. **Which among the following is an incorrect statement with regard to the drug Dantrolene**

- (a) It is a pyrazoline derivative
- (b) It is an imidazoline analogue
- (c) It is a nitrophenyl furfurylidene derivative
- (d) It is a skeletal muscle relaxant

21. **Diazepam is not suitable for per-oral sustained release form since**

- (a) It has biological half-life greater than twelve effects hour
- (b) Is not absorbed in lower intestine
- (c) It has biological half-life less than one hour
- (d) It has undesirable side effects

22. **Antioxidant used as blocking agent in sterile product is**

- (a) Ascorbic acid esters
- (b) Sodium bisulphate
- (c) Ascorbic acid

(d) EDTA

23. Many mediators have been implicated in the asthmatic response. The clinical efficacy of pharmacologic intervention with inhibitors or antagonist of the mediators involves following category - except

- (a) Platelet activating factors
- (b) Anticholinergics
- (c) Antihistaminics
- (d) Cytokine inhibitors

24. Match the following adrenergic drugs with their receptor affinity

- | | |
|------------------|--|
| a. Epinephrine | 1. More alpha 1, no beta 1, beta 2 & dopamine |
| b. Noradrenaline | 2. More alpha 1, beta 1, less beta 2 & no dopamine |
| c. Phenylephrine | 3. More beta 1 & beta 2, no alpha 1 and dopamine |
| d. Dobutamine | 4. More alpha & beta 1, no beta 2 & dopamine |

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

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

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

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

25. If the drug substance has been substituted wholly or in part by another drug or substance, it is called as (a) Spurious drug

- (b) Adulterated drug
- (c) Misbranded drug
- (d) Mixed drug

26. One of the principle upon which HPLC detector functions is

- (a) Redox property of solute is the basis for functioning of Electrochemical detectors
- (b) Fluorimetric detector has high selectivity and low sensitivity
- (c) Small difference in Refractive Index of mobile phase permit precise measurements in refractive index detectors
- (d) UV detector function based on its ability to detect

27. Methanolic extract of a crude drug powder when treated with magnesium turnings and concentrated hydrochloric acid turned the solution magenta coloured. The test is termed as

- (a) Shinoda test
- (b) Van Urk's Test
- (c) Keller Killiani test
- (d) Vitali Morin Test

28. Etoposide and Teniposide are the semisynthetic derivatives of

- (a) Myrrhabolic acid
- (b) Abietic acid
- (c) Podophyllotoxin
- (d) Umbelliferone

29. The thymus secretes several hormones related to the immunity. These hormones promote the maturation of T lymphocyte cells. These hormones are 1. Thymosin 2. Thymic humoral factor 3. Thymic factor 4. Interleukins

- (a) Only 1, 2
- (b) Only 4
- (c) and 3
- (d) 1, 2 and 3

30. For the measurement of particle size of powders, the distance measured between two tangents on opposite sides of the particle parallel to some fixed direction is called

- (a) Martin diameter
- (b) Feret diameter
- (c) Projected area diameter
- (d) Edmundson diameter

31. Beta oxidation of fatty acids takes place in

- (a) Mitochondria
- (b) Cytoplasm
- (c) Nucleus
- (d) Choroplast

32. Which of the following genera is not the source for tropane alkaloids

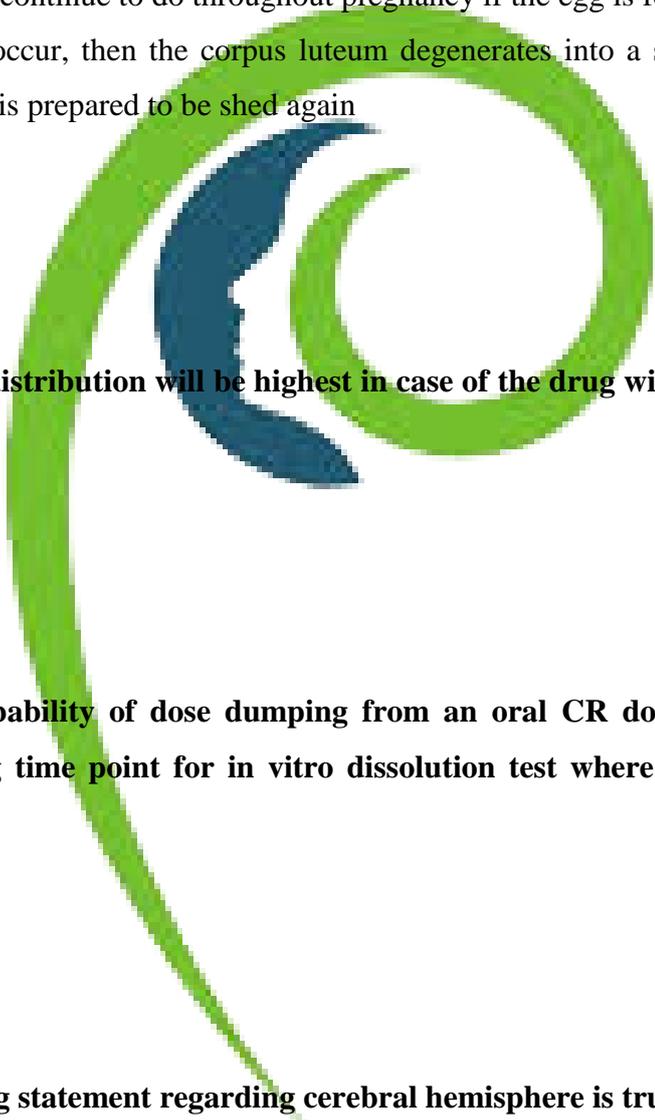
- (a) Datura
- (b) Duboisia
- (c) Atropa
- (d) Nicotiana

33. The useful variable from in vitro dissolution test data for IVIVC includes

- (a) t_{50} % - $t_{63.2}$ %
- (b) Sampling interval
- (c) Sample volume
- (d) Volume of dissolution fluid

34. In respect of female reproductive cycle, which of the following statements are correct

1. The female reproductive cycle consists of menstrual phase, a pre-ovulatory phase, ovulation and a post ovulatory phase

2. During the menstrual phase, small secondary follicles in the ovary begin to enlarge while the uterus is shedding its lining
 3. During the pre-ovulatory phase, a dominant follicle continues to grow and begins to secrete estrogen and inhibin while the uterine lining begins to rebuild
 4. Ovulation results in the release of an ovum and the shedding of the uterus lining to nourish and support the release ovum
 5. After ovulation, a corpus luteum forms the ruptured follicles and begins to secrete progesterone and estrogen, which it will continue to do throughout pregnancy if the egg is fertilized
 6. If pregnancy does not occur, then the corpus luteum degenerates into a scar known as corpus albicans and uterine lining is prepared to be shed again
- (a) 1, 2, 3 and 6
(b) 2, 3, 4 and 6
(c) 1, 2, 4 and 5
(d) 1, 4, 5 and 6
- 

35. Apparent volume of distribution will be highest in case of the drug with % plasma protein binding

- (a) 89
(b) 10
(c) 50
(d) 68

36. To rule out the probability of dose dumping from an oral CR dosage form, USP has included which sampling time point for in vitro dissolution test where D is normal dosing interval

- (a) 0.50D
(b) 50-1.0D
(c) 0.25D
(d) 1.0-2.0D

37. Which of the following statement regarding cerebral hemisphere is true

- (a) The right and left hemisphere are symmetrical
(b) This right more important for spoken and written language
(c) The left hemisphere is more important for musical and artistic awareness
(d) Hemispheric lateralization is more pronounced in male than in female

38. Which among the following is a Class-I method, used for rendering a solution of drug isotonic with body fluids

- (a) Cryoscopic method

- (b) White-Vincent method
- (c) Sprowls method
- (d) Hammarlund method

39. (Weight in pounds/150] * Adult Dose = Child dose The above formula is known as in **Posology**

- (a) Youngs formula
- (b) Dillings formula
- (c) Frieds formula
- (d) Clarkes formula

40. The type of particle diameter obtained by microscopic method of evaluation is

- (a) Projected diameter
- (b) Surface -volume diameter
- (c) Volume - surface diameter
- (d) Stokes diameter

41. Naphazoline

- (a) Is used for relief of nasal congestion
- (b) Exhibits peripheral beta-adrenoceptor stimulant
- (c) Is a pyrazoline derivative
- (d) Chemically, is 1H Imidazole, 3,4 -dihydro- 2 -(3-naphthylmethyl) monohydrochloride

42. A patient receiving warfarin develops rheumatoid arthritis. Which one of the following drugs would be contraindicated

- (a) Ibuprofen
- (b) Aspirin
- (c) Aurothioglucose
- (d) Tolmetin

43. A crude drug powder was heated with ferric chloride, water and concentrated hydrochloric acid followed by extraction with chloroform. The chloroform layer was treated with ammonia, the ammonical layer turned pink. The test indicates presence of phytoconstituent

- (a) Anthraquinone-C-glycosides
- (b) Flavanones
- (c) Cardiac glycosides
- (d) Saponin glycosides

44. The first vaccine was discovered by

- (a) DeBary

- (b) Paul Ehrlich
- (c) Edward Jenner
- (d) Robert Koch

45. Type IV dissolution apparatus as per USP is

- (a) Paddle type apparatus
- (b) Flow through cell
- (c) Reciprocating cylinder
- (d) Paddle over disk apparatus

46. Hoesppler viscometer is a type of

- (a) Capillary viscometer
- (b) Falling sphere viscometer
- (c) Cup and Bob viscometer
- (d) Cone and plate viscometer

47. Following are the list of various inherited metabolic disorders that can affect functioning of liver

- a. Primary biliary cirrhosis
- b. Glycogen storage disease
- c. Gilbert's syndrome
- d. Haemochromatosis
- e. Wilson's disease

- (a) a, b, c, d
- (b) a, c, d, e
- (c) b, c, d, e
- (d) a, b, d, e

48. In relation to buccal and sublingual route of administration which of the following statement is incorrect

- (a) Absorption through epithelium is not affected by partition coefficient of the Drug
- (b) Drug absorption by these routes bypass first pass metabolism
- (c) There is an optimum log P for sublingual absorption
- (d) These are preferred routes for anti-anginal drug

49. Which among the following statements describing surface activity for surfactants is incorrect

- (a) Increase in length of hydrocarbon chain decreases surface activity
- (b) Increase in ethylene oxide chain of polyoxy ethyl alcohol Increase in surface activity
- (c) Increase in surface activity results in decrease length of hydrocarbon chain

(d) Relationship between hydrocarbon chain length and hydrophobicity

50. Surface tension is categorized as a/an factor

- (a) Capacity
- (b) Tolerance
- (c) Extensive
- (d) Intensive

51. Which of the following gums is obtained from endosperm

- (a) Acacia gum
- (b) Guar gum
- (c) Tragacanth gum
- (d) Tolerance
- (d) Sterculia gum

52. High lightening differences among brands within the same product category is

- (a) Branding
- (b) Brand launch
- (c) Product differentiation
- (d) Product brand

53. Hot stage microscopy is an important tool in pre-formulation studies for the study of

- (a) Compaction behaviour
- (b) Particle size measurement
- (c) Microbial contamination
- (d) Pseudopolymorphism

54. In Bismuth subgallate suppositories B.P.C, when no strength of the drug is specified, B.P.C directs bismuth subgallate per suppository

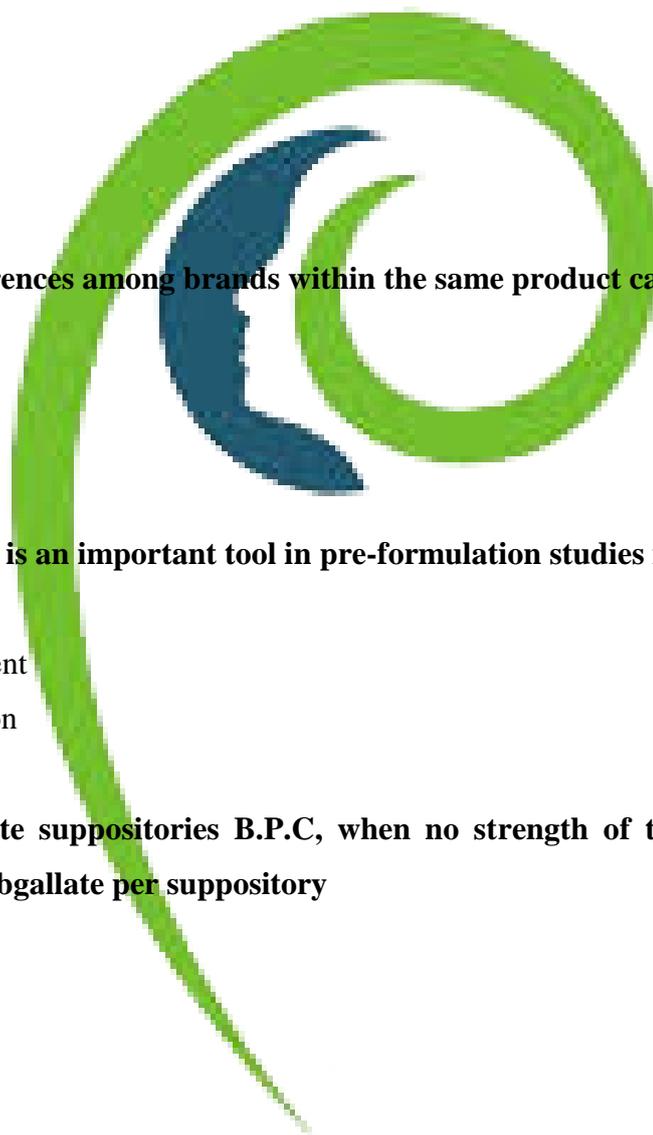
- (a) 300 mg
- (b) 100 mg
- (c) 200 mg
- (d) 400 mg

55. The Michaelis-Menten equation for saturated active transport system is

- (a) $V_{\max} = K_{\text{cat}} [E]$
- (b) $V_{\max} = K_m$
- (c) $V_{\max} = K_m[S]$
- (d) None of the above

56. The largest gene in human is

- (a) Dystrophin



- (b) Titin
- (c) Insulin
- (d) Phosphofructokinase

57. Which of the following techniques is not useful to detect polymorphs

- (a) HPLC
- (b) DSC
- (c) PXRD
- (d) Melting point determination

58. Which of the following constituents is responsible for colour of shellac

- (a) Laccaic acid
- (b) Shelloic acid
- (c) Aleurotic acid
- (d) All of the above

59. Match the following drugs with alteration they produces in structural-functional of kidney

- | | |
|-------------------------------|--|
| 1. Aminoglycoside antibiotics | (a) Glomerular abnormality |
| 2. ACE inhibitors | (b) Tubular epithelial cell damage |
| 3. Methotrexate | (c) Hemodynamic Mediated kidney injury |
| 4. NSAIDs | (d) Obstructive nephropathy |
- (a) a-2, b-3, c-4, d-1
 - (b) a-1, b-2, c-3, d-4
 - (c) a-3, b-4, c-1, d-2
 - (d) a-4, b-1, c-2, d-3

60. Hixon Crowell's cube root law of dissolution states that

- (a) There is a change in particle size and surface area during dissolution of drug
- (b) Dissolution process is controlled by diffusion of molecules/ions
- (c) High free energy of activation is required for solution
- (d) Renewal of surface fluid layer around drug particle

61. All of the following statements regarding estrogen therapy in postmenopausal women are true EXCEPT

- (a) It restores the loss of bone mass due to osteoporosis
- (b) It may be useful to treat vasomotor symptoms
- (c) Administration in a regimen including a progestin
- (d) It is useful in the treatment of atrophic vaginitis

62. Chapter IV of which law states that experiments on animals are avoided wherever it is possible to do so; as for example; in medical schools, hospitals, colleges and the like, if other

teaching devices such as books, models, films and the like, may equally suffice. Also, that experiments on larger animals are avoided when it is possible to achieve the same results by experiments upon small laboratory animals like guinea-pigs, rabbits, frogs and rats

- (a) The prevention of cruelty to animal act, 1960
- (b) The Pharmacy Act, 1948
- (c) Drugs and Cosmetics Act, 1940
- (d) Medicinal and Toilet Preparations Act, 1955

63. Which among the following rules about spin - spin coupling and bond multiplicities are correct with regard to NMR spectra

- (a) Coupling constant rarely exceeds 20 cps while chemical shifts are over 1000 cps
- (b) Spin - Spin interactions are dependent of strength of the applied field
- (c) Coupling constants increase with distance
- (d) Equivalent nuclei interact with each other to show interaction

64. Most accepted mechanism for developing bacterial resistance to sulphonamides is

- (a) An alternative metabolic pathway for synthesis of essential metabolite
- (b) An increasing capacity to metabolize the drug
- (c) Increased antagonism of drug
- (d) An alteration in enzyme that utilizes PABA

65. All the dopaminergic agonists having affinity for D2 receptors are clinically used in following conditions except

- (a) Obsessive-compulsive disorder
- (b) Hyperprolactinemia
- (c) Acromegaly
- (d) Parkinsonism

66. The labeling instruction "To be diluted 20 times its volume with water" indicates the dispensed product is a

- (a) Mouthwash
- (b) Elixir
- (c) Linctus
- (d) Mixture

67. Which among the following is a structural variant of GABA and is used as a muscle relaxant

- (a) Metocurine
- (b) Baclofen
- (c) Tybamate

(d) Cyclobenzaprine

68. A steroidal phytoconstituent lowering blood sugar is obtained from

- (a) Glycyrrhiza glabra
- (b) Quilla jasponearia
- (c) Dioscorea deltoidea
- (d) Momordica charantia

69. Which of the following drug is associated with the reaction of extreme photosensitivity

- (a) Tetracycline
- (b) Digitalis
- (c) Niacin
- (d) Fluoroquinolones

70. Which among the following statements related to Ceric sulphate as oxidizing agent, as titrant are correct (a) Ce (IV) during reaction exists as an anionic complex in media of sulphuric acid

- (b) Ionic equation is $Ce^{3+} \rightarrow Ce^{2+} + e^{-}$
- (c) Formal potential of Ce (III) Ce (II) couple is 1
- (d) Ce (IV) does not permit use of HCl as reducing media

71. Which of the following conditions is treated with benztropine?

- (a) Parkinsonian disorders
- (b) Manic depressive disorders
- (c) Huntington's disease
- (d) Tardive dyskinesia

72. A labeled piece of DNA that is complementary to the sequence of DNA you are interested in, say the gene you are trying to put into cells, is called as

- (a) A probe
- (b) A receptor
- (c) A epitope
- (d) A target

73. As per first schedule of Drugs and Cosmetics Act, 1940, following is name of the book under Siddha system of medicine

- (a) Arka Prakasha
- (b) Yog Ratnakar
- (c) Nagamuni
- (d) Vrinda Chikitsa

74. Amantidine is helpful in Parkinson's disease because

- (a) It liberates dopamine from nerve endings
- (b) It decreases cholinergic activity
- (c) It is metabolized into dopamine
- (d) It increases adrenergic activity

75. An intermediate 3-Chloroaniline-4, 6-disulphonamide on heating with formic acid yields a compound

- (a) 6-chloro-2H-1,2,4-benzothiadiazine-7-sulphonamide
- (b) 3-chloro-2H-1,2,4- benzothiadiazine-7-sulphonamide
- (c) Used in treatment of urinary tract infections
- (d) Used as antibacterial

76. Rubella virus is associated with disease

- (a) Progressive encephalitis
- (b) Enterovirus infection
- (c) Yellow fever
- (d) Brucellosis

77. Which among the following electronic systems are not involved in the origin of UV spectrum

- (a) s and p shell electrons
- (b) sigma and pi electrons
- (c) Charge transfer electrons
- (d) d and f shell electrons

78. Which of the following is not a thermoplastic resin

- (a) Phenolic plastic resin
- (b) Polystyrene
- (c) Polyethylene
- (d) Polypropylene

79. Choose the right combination from the following

Types of Stomata

- a. Diacytic stomata and sessile glandular trichome
- b. Paracytic stomata and unicellular warty covering trichome
- c. Anomocytic stomata and Glandular and multi cellular trichonme
- d. Anisocytic stomata and multicellular covering trichome

- (a) a-ii, b-iii, c-iv, d-i
- (b) a-iii, b-iv, c-i, d-ii
- (c) a-i, b-iv, c-ii, d-iii

Crude Drug

- (i) Datuara
- (ii) Vasaka
- (iii) Senna
- (iv) Digitails

(d) a-iv, b-ii, c-i, d-iii

80. Pharmaceutical alternatives possess

- (a) Same amount of therapeutic moiety
- (b) Identical therapeutic moiety/precursor but not in the same amount/dosage form
- (c) Same dosage form
- (d) Same formulation ingredients in exactly same amount

81. Topical application of timolol to the eye would be expected to induce which of the following

- (a) Decreased formation of aqueous humor
- (b) Miosis
- (c) Mydriasis
- (d) Increased outflow of aqueous humor

82. The major component of liquid glucose is prepared from

- (a) Glucose, Starch
- (b) Dextrin, Starch
- (c) Dextrose, Starch
- (d) Maltose, Pectin

83. Which of the following formulations under ASU system are offered infinite period of shelf life in D and C Act

- (a) Churna
- (b) Asava & Arishta
- (c) Ghutika
- (d) Kwatha

84. Which of the following is an example of hemiesters anionic surfactant for pharmaceutical emulsions

- (a) Sarcosinates
- (b) Sulfosuccinates
- (c) Taurates
- (d) Lactylates

85. The major differences between the prokaryotic and eukaryotic protein synthesis mechanisms are in which part of the process

- (a) The initiation of synthesis
- (b) The chain elongation process
- (c) The chain termination process
- (d) None of the above

86. In DNA replication the newly added nucleotide is joined to the growing DNA strand by an enzyme

- (a) DNA polymerase
- (b) DNA ligase
- (c) Restriction endonuclease
- (d) Reverse transcriptase

87. What is the specific rotation of a compound 'X' when the concentration is 0.5% w/v, angle of rotation is 1.3 and tube-length is 25 cm?

- (a) 10.4°
- (b) 104°
- (c) 108°
- (d) 10.8°

88. Which of the following dosage form of digoxin will provide greater bioavailability based on value of F

- (a) F equals 1.0
- (b) F equals 0.32
- (c) F equals 0.62
- (d) F equals 0.77

89. The process by which the formed elements of blood develop is call as hemopoiesis. In the process of hemopoiesis the stem cells are converted in to myeloid stem cell and subsequently differentiated and are developed into precursor cells. Match the following precursor cells with the formed elements of blood from which they are formed.

- | | |
|-------------------|------------------|
| 1. Reticulocyte | (a) Platelets |
| 2. Megakaryoblast | (b) Macrophages |
| 3. Myeloblast | (c) Erythrocytes |
| 4. Monoblast | (d) Neutrophils |

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

90. Using Young's rule, calculate the dose for a 5 year old child if the adult dose is 340mg

- (a) 200 mg
- (b) 400 mg
- (c) 100 mg
- (d) 800 mg

91. Which among the following statements on electro analytical methods are correct

- (a) Measures conductance between two electrodes with AC powered Wheatstone bridge
- (b) Polarography involves plotting of conductance - voltage
- (c) Potentiometry involves application of Ilkovic equation
- (d) Coulometry involving application of Nernst law relating equivalence between quantity of electricity passed and amount of compound generated at electrodes

92. Chemical interferences are common than spectral interferences due to

- (a) Formation of compounds of low volatility
- (b) Ionization in flames
- (c) Increase in rate of atomization
- (d) No shift in ionization equilibrium

93. Phase 0 studies means

- (a) First in human microdosing studies
- (b) Part of phase I studies of clinical trials
- (c) In vitro studies
- (d) Studies carried out on small number of animals

94. Condensation product of Ethyl isopentyl ester of diethyl malonic acid with urea and sodium ethoxide yields

- (a) Amylobarbitone
- (b) Phenobarbitone
- (c) Pentobarbitone
- (d) Quinobarbitone

95. Clavulanic acid is

- (a) An Inactivator bacterial - lactamase
- (b) Potent Inhibitor of peptidoglycan synthesis
- (c) Specific for gram negative bacteria
- (d) Inhibitor of 50s ribosomal subunit

96. The method by which different constituents of a liquid mixture can be separated without decomposition of the constituents is

- (a) Distillation under reduced pressure
- (b) Molecular distillation
- (c) Steam distillation
- (d) Fractional distillation

97. The preferred rheological behavior of Pharmaceutical suspensions is that of

- (a) Pseudoplasticity and thixotrophy

- (b) Pseudoplasticity
- (c) Dilatancy and thixotrophy
- (d) Pseudoplasticity and rheopexy,

98. An inventory turnover of a year is considered satisfactory

- (a) Four to six times, Six
- (b) Six to eight times
- (c) One to two times
- (d) None of the above

99. The number of glucopyranose units in the structure of alpha cyclodextrins are

- (a) 8
- (b) 9
- (c) 7
- (d) 6

100. The compound 2 - (Diethylamino) ethyl [bicyclohexyl] - 1-carboxylate hydrochloride is

- (a) Dicycloverine
- (b) Diphenhydramine
- (c) Both nicotinic and specific antispasmodic,
- (d) Diagnostic agent for diagnosis of thyroid gland,

101. In new product development process, after analysis of business next step to be taken is

- (a) Test marketing
- (b) Penetration marketing
- (c) Brand marketing
- (d) Individual marketing

102. Which of the following alkaloid (form) is used to treat migraine

- (a) Vinca
- (b) Coca
- (c) Ergotamine
- (d) Belladonna

103. Free flowing powders show a flatter cone and have

- (a) Smaller angle of repose
- (b) Larger angle of repose,
- (c) Intermediate angle of repose
- (d) None of the above,

104. The WIPO is the specialized agency of the United Nations. It promotes protection of throughout the world

- (a) Intellectual properties
- (b) World properties
- (c) Pharmaceutical organizations
- (d) Finance companies

105. Herpes viruses are large encapsulated viruses that have double stranded DNA genome that encodes approximately 70 proteins. It causes acute infection followed by latent infection in which virus persist in noninfectious form with periodic reactivation and shedding of infectious virus. Following are the examples of such herpes virus -except

- (a) Epstein-Barr Virus
- (b) Herpes simplex
- (c) Varicella Zoster
- (d) Cytomegalovirus

106. A fatty acid not synthesized in human body and has to be supplied in diet is

- (a) Linolenic acid
- (b) Oleic acid
- (c) Palmitic acid
- (d) Stearic acid

107. Chemical class of drugs that are susceptible to oxidation are

- (a) Esters
- (b) Sterols
- (c) Lactam
- (d) Carbamates

108. The only analgesic acting centrally is

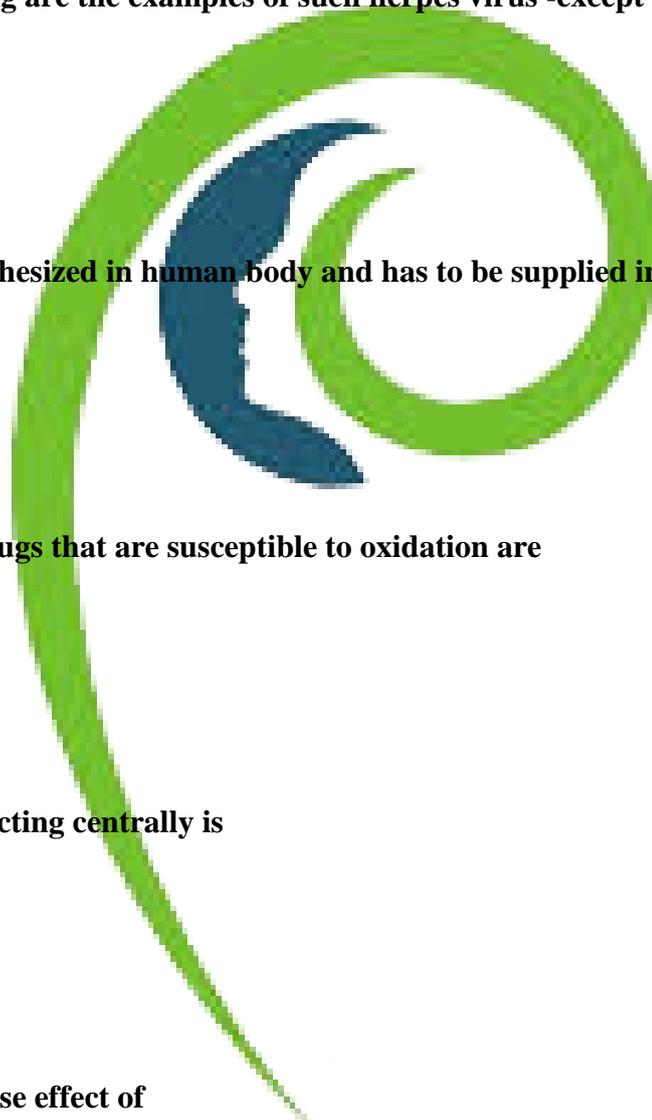
- (a) Methadone
- (b) Naloxane
- (c) Tramadol
- (d) Naloxane

109. Neuropathy is adverse effect of

- (a) Isoniazid
- (b) Ethambutol
- (c) Pyrazinamide
- (d) Dapsone

110. As per I.P. if the solubility range of a solute is 30 to 100 parts, it will be

- (a) Soluble
- (b) Freely soluble



(c) Sparingly soluble

(d) Slightly soluble

111. SDS is used in PAGE of a mixture of proteins for their efficient separation on the gel. SDS, in the experiment is used to

(a) Have uniform charge density on the proteins

(b) Stabilize the proteins

(c) Decrease the surface tension of buffer

(d) Solubilize the proteins

112. Indicate which of the following statements is true

(a) A weakly acidic drug is unionised when pH of the solution is at least 2 pH units below its pKa

(b) Acidic drugs are nonionized at pH 9

(c) Acidic drugs are less soluble in alkaline solution

(d) The higher the pKa of a weak acid, the stronger is acid

113. Dissemination of cancer occurs through one of the following pathway – except

(a) Migration

(b) Direct seeding

(c) Lymphatic spread

(d) Hematogenous spread

114. Which of the following alkaloids has hypotensive activity

(a) Emetine

(b) Quinine

(c) Papaverine

(d) Reserpine

115. Which of the following is a characteristic of cytochrome P-450

(a) Catalyzes aromatic and aliphatic hydroxylations

(b) Located in the lipophilic environment of mitochondrial membrane

(c) Catalyzes O-, S-, N-methylation reactions

(d) Catalyzes conjugation reactions

116. The Michaelis-Menten equation for standard for saturated active transport system is-

(a) K_m , the Michaelis constant, is defined as the concentration of substrate required for the reaction to reach maximum velocity.

(b) K_m , the Michaelis constant, is a measure of the affinity the enzyme has for its substrate.

(c) K_m , the Michaelis constant, is defined as the concentration of substrate required for the reaction to reach minimum velocity.

(d) None of the above

117. Which among the following describe the characteristic features of Tetracycline

- (a) Undergoes epimerization in solutions having intermediate pH range
- (b) Forms Anhydrous tetracycline in presence of acidic medium
- (c) Forms Minocycline in basic medium
- (d) Forms stable chelate complexes with potassium ions

118. Cells that contribute for immune system are

- 1. T Lymphocytes
- 2. Eosinophil
- 3. B Lymphocytes
- 4. Dendritic cells
- 5. Erythrocytes
- 6. Natural killer cells

- (a) 1, 3, 4 and 6
- (b) 1, 2, 4 and 6
- (c) 1, 3, 5 and 6
- (d) 1, 2, 5 and 6

119. Dielectric constant of Ethanol at room temperature is almost equal to

- (a) 24
- (b) 48
- (c) 54
- (d) 72

120. Foaming during liquid filling can be reduced by following ways, except

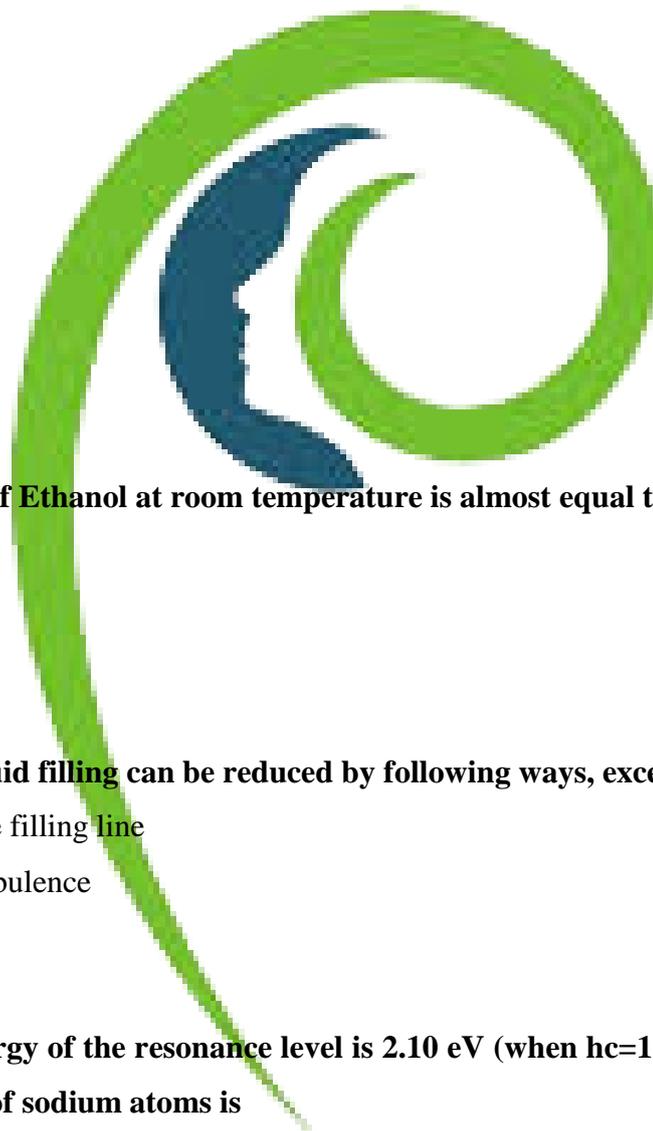
- (a) Increase in speed of the filling line
- (b) Minimized product turbulence
- (c) Closed system filling
- (d) Defoaming device

121. If the excitation energy of the resonance level is 2.10 eV (when $hc=12,330$) then the wavelength of resonance line of sodium atoms is

- (a) 587.2 nm
- (b) 577.2 nm
- (c) 567.2 nm
- (d) 597.2 nm

122. After vascular injury, platelets encounter extracellular matrix constituents such as collagen and adhesive glycoprotein. On contact with these proteins platelets undergo

- 1. Adhesion



- 2. Secretion
- 3. Aggregation
- 4. Degradation

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

123. A reporting relationship in which an employee receives orders from, and reports to, only one supervisor is known as

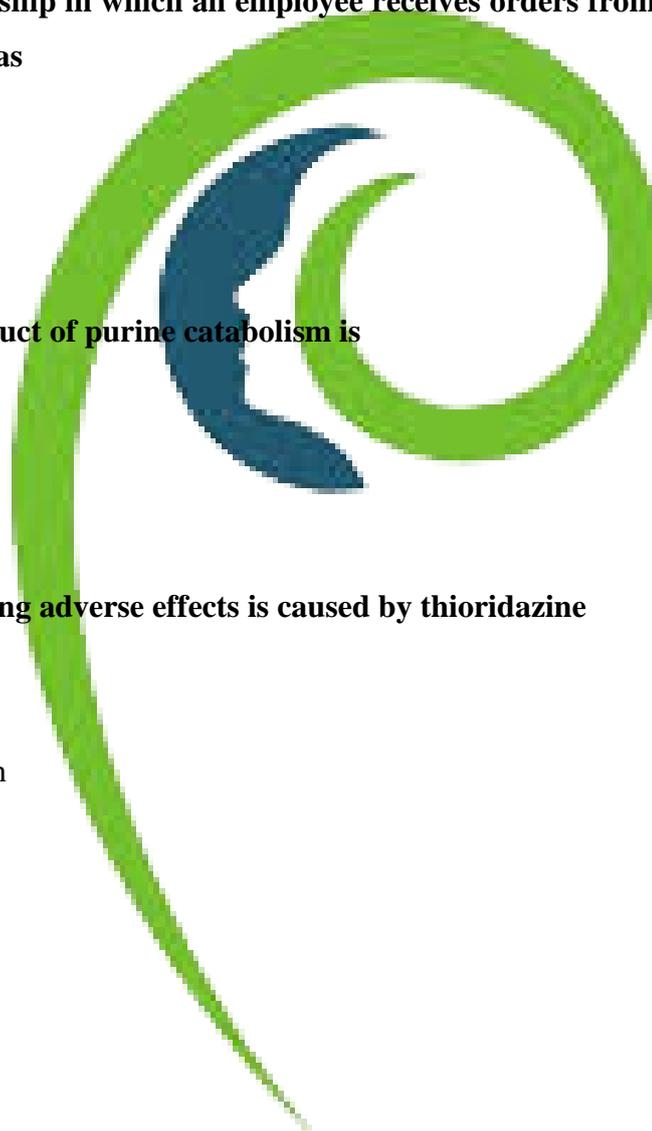
- (a) Unity of command
- (b) Centralisation
- (c) Decentralisation
- (d) Line of authority

124. In humans end product of purine catabolism is

- (a) Uric acid
- (b) Urea
- (c) Purine oxide
- (d) Xanthine

125. Which of the following adverse effects is caused by thioridazine

- (a) Tardive dyskinesia
- (b) Constipation
- (c) Orthostatic hypotension
- (d) All of the above



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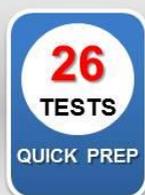
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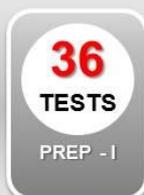
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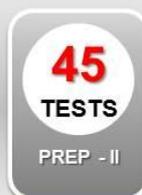
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Answers

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