

GPAT-2015

Pharmaceutics

1. "Shealth Liposomes" have been developed to
 - (a) Extend their half life
 - (b) Decrease the drug's toxicity
 - (c) Enable site specific drug delivery
 - (d) Alter the size of vesicles
2. What is the objective of trademark
 - (a) To claim exclusive properties of products or services
 - (b) To claim innovation of products or services
 - (c) To deal with market place of expressive ideas
 - (d) To protect consumers from being misled
3. How the wetting agent act in the suspension
 - (a) Increase contact angle between substance and solvent
 - (b) Reduce contact angle between substance and solvent
 - (c) No change in contact angle between substance and solvent
 - (d) None of the above
4. A pharmaceutical API is prone to environmental oxidation. To achieve a Better therapeutic action, its size needs to be reduced Method of choice for pulverization
 - (a) Ball milling
 - (b) Hammer mill
 - (c) Colloid mill
 - (d) Rotary cutter mill
5. Schulze – Hardly rule is for
 - (a) Lyophilic colloid
 - (b) Hydrophilic colloid
 - (c) Association colloid
 - (d) Both (b) and (c)
6. Brookfield viscometer is
 - (a) Single point
 - (b) Rotational
 - (c) Falling sphere type
 - (d) Capillary type
7. Amount of dextrose in large volume infusion fluids
 - (a) 5% w/v
 - (b) 10% w/v
 - (c) 25% w/v
 - (d) 50% w/v
8. The antioxidants action of sodium metabisulphite is due to
 - (a) Release of CO₂
 - (b) Release of O₂
 - (c) Release of SO₂
 - (d) Release of sodium ions
9. How much of 90 % and 20% alcohols are required to produce 350 ml of 60% alcohol
 - (a) 250 ml, 100 ml
 - (b) 300 ml, 50 ml
 - (c) 200 ml, 150 ml
 - (d) 150 ml, 200 ml
10. Units for rate constant (K) for second order kinetics
 - (a) S⁻¹
 - (b) Moles /liter. S
 - (c) Moles⁻¹, liter S⁻¹
 - (d) Moles,Liter S⁻¹
11. Passive diffusion follows which order of kinetics
 - (a) Non selective and mixed order
 - (b) Selective and first order
 - (c) Non selective and first order
 - (d) Selective and mixed order
12. Conc v/s time curve drawn from single oral dose, which parameter can be calculated
 - (a) Elimination constant
 - (b) Rate constant
 - (c) Absorption peak
 - (d) Plasma conc
13. If a basic drug reabsorbed significantly from kidney which of the following statement will be correct
 - (a) Its renal clearance increases in basic urine
 - (b) Its renal clearance decreases in basic urine
 - (c) Its renal clearance increases in acidic urine
 - (d) Its renal clearance decreases in acidic urine
14. 'Sparging' is the process where
 - (a) Silanol groups react with trimethylsilyl group
 - (b) An inert gas is bubbled through the solvent reservoir to remove dissolved gases
 - (c) Solvents are mixed together in a fixed ratio
 - (d) Column is washed with solvents from nonpolar to polar and reverse
15. Which of the following incorrect about parenteral nutrition
 - (a) Parenteral nutrition solutions are hypertonic solutions and IV fluids are isotonic
 - (b) Parenteral nutrition solutions and IV preparations are isotonic solutions
 - (c) Parenteral nutrition solutions are hypotonic solutions and IV fluids are isotonic
 - (d) Parenteral nutrition solutions can be supplemented with medications
16. Which phase of emulsion is reversible phase
 - (a) Cracking
 - (b) Creaming
 - (c) Phase Inversion
 - (d) Coalescence
17. Which of the following apparatus can be used for determining the surface tension of liquids
 - (a) Ostwald viscometer
 - (b) Rheometer
 - (c) Du Nouy tensiometer
 - (d) Coulter counter
18. Pseudoplastic flow is generally exhibited by
 - (a) Viscous pastes
 - (b) Solution of mucilages and gums
 - (c) Gellies
 - (d) lotions
19. Chemically, spans are also called as
 - (a) Sorbitan esters of fatty acids
 - (b) Polyxyethylene sorbitan esters of fatty acids
 - (c) Fatty acid-polyethylene glycol esters
 - (d) Alcohol-polyethylene glycol esters
20. Increase in solubility of a drug in water in the presence of additives is known as
 - (a) Dissolution
 - (b) Cosolvency
 - (c) Solubilization
 - (d) Hydrotrophy
21. Lauryl amino propionic acid in shampoo is used as
 - (a) Clarifier
 - (b) Conditioner
 - (c) pH adjustment
 - (d) Detergent

22. Creatinine clearance is used as a measurement of
 (a) Passive renal absorption
 (b) Glomerular filtration rate
 (c) Renal excretion rate
 (d) All of these
23. The loading dose L_d of a drug is usually based on the
 (a) Total body clearance of the drug
 (b) Percentage of drug bound to plasma proteins
 (c) Fraction of drug excreted unchanged in the urine
 (d) Apparent volume of distribution & desired drug concentration in plasma
24. A good in-vitro & in-vivo dissolution correlation can be obtained when the in vitro dissolution is performed under
 (a) Normal condition (b) Sink condition
 (c) High temperature (d) A constant value
25. Concentration of drug in blood is 40mg/ml. Dose of the drug is 200mg. Assu minute elimination V_d will be
 (a) 5 litres (b) 0.5 litre (c) 2.5 litre (d) 3 litre
26. An additive used to reduce die-wall friction in tablet compression is
 (a) Glidants (b) Lubricants
 (c) Anti-adherents (d) Diluents
27. Under BCS class I drug are having
 (a) High solubility and permeability
 (b) Low solubility and permeability
 (c) High solubility and low permeability
 (d) Low solubility and high permeability
28. A licence to import drugs specified in Schedule X to the Drugs and Cosmetics Rules, 1945 shall be issued in
 (a) Form 8 (b) Form 8A
 (c) Form 10 (d) Form 10A
29. A plot of $\ln K_{eq}$ versus $1/T$, known as a
 (a) Van't half plot (b) Arrhenius plot
 (c) Gibbs plot (d) None of these
30. The equation $dP/dT = pH/RT^2$ is known as
 (a) Clausius equation
 (b) Clapeyron equation
 (c) Clausius-Clapeyron equation
 (d) Boltzman – Plank equations
31. Elimination after 4 half lives in first order kinetics is
 (a) 84% (b) 93% (c) 80.5% (d) 4.75%
32. Thixotropy in a plastic system indicates a gel-sol-gel transformation while negative thixotropy indicates
 (a) Gel-sol-sol transformation
 (b) Sol-gel-sol transformations
 (c) Sol-gel-gel transformation
 (d) Sol-sol-gel transformations
33. Aggregates which are characterized by fibrous & open network have
 [P] Called as floccules
 [Q] Have high sedimentation height
 [R] Have high sedimentation rate
 [S] Called as coagules
 (a) [P] and [Q] (b) [P], [Q] & [R]
 (c) [Q] & [S] (d) [Q], [R] & [S]
34. An antibiotic which has a half-life of one day is formulated as a 200 mg tablet. How many mg of antibiotic would remain after six days
 (a) 12.5 mg (b) 6.25 mg
 (c) 3.12 mg (d) 1.56 mg
35. Person contravening any provision of the drugs and magic remedies (objectionable advertisements) act is punishable with
 (a) Imprisonment up to three months or fine or both
 (b) Imprisonment up to four months or fine or both
 (c) Imprisonment up to five months or fine or both
 (d) Imprisonment up to six months or fine or both
36. Schedule N is related with
 (a) Furniture and apparatus in pharmacy
 (b) Water bath in pharmacy
 (c) Indian Pharmacopoeia in pharmacy
 (d) Good manufacturing practice
37. The solvates can exist in different crystalline forms called as
 (a) Enantiotropic (b) Monotropic
 (c) Pseudopolymorphs (d) Amorphous
38. Identify the incorrect match
 (a) TGA
 (b) Transmission Electron Microscope
 (c) Dissolution rate method
 (d) DSC
39. Identify the incorrect statement
 (a) Brownian motion of particles give flocculated suspension
 (b) Brownian motion of particles can be observed if particle size is 2-5
 (c) Brownian motion of particles makes suspension unacceptable
 (d) To eliminate Brownian motion of particles, 20% of glycerine solution with viscosity of
40. If average weight of tablet is 450 mg, what is the % of difference allowed
 (a) $\pm 10\%$ (b) $\pm 5\%$ (c) $+7\%$ (d) $+1\%$
41. Bougies are
 (a) Rectal suppository (b) Urethral suppository
 (c) Hydrogel suppository (d) None of these
42. Identify the incorrect statement
 (a) Co- solvency is a solubility enhancement technique
 (b) Shake flask method is used to determine partition coefficient
 (c) Solubility of a highly soluble salt is decreased by adding a common ion in common ion effect
 (d) Diffuse Reflectance Spectroscopy is used for drug- excipient study analysis

Pharmacology

43. Inflammation of soft tissue due to hyaluronidase is called as
 (a) Tendinitis (b) Bursitis
 (c) Cellulitis (d) Cumulative Injury Disorder (CID)

44. Which of the following drug prevents uric acid synthesis by inhibiting the enzyme
(a) Paracetamol (b) Allopurinol
(c) Sulfasalazine (d) Aspirin
45. Which of the following substances is a organophosphorus insecticide
(a) Diazoxide (b) Tacrine
(c) Donepezil (d) Rotenone
46. British antilewisite
(a) Dimercaprol (b) Succimer
(c) D-penicillamine (d) Deferoxamine
47. Which of the following Calcium channel blocker is Phenyl alkyl derivative
(a) Bepridil (b) Nifedipine
(c) Diltiazem (d) Ticlopidine
48. Which one of the following is systemic antacid
(a) Magnesium hydroxide (b) Sodium Citrate
(c) Sucralfate (d) Carbenoxolone
49. A competitive antagonist is a substance that
[P] Interacts with receptors and produces submaximal effect
[Q] Binds to the same receptor site and progressively inhibits the agonist response
[R] Binds to the nonspecific sites of tissue
(a) [P] true, [Q] & [R] false (b) [P] & [Q] true, [R] false
(c) [Q] true, [P] & [R] fake (d) [Q] & [R] true, [P] false
50. Antiretroviral & Raltegravir is unique, because of which of its following actions
(a) Integrase inhibition
(b) CCR5 Co-receptor antagonism
(c) Fusion inhibition
(d) Reverse transcriptase inhibition
51. Out of the following anticancer drug cardio toxicity is seen in
(a) Mitomycin-C (b) Doxorubicin
(c) Methotrexate (d) Cyclophosphamide
52. This drug is a Class IC antiarrhythmic drug
(a) Flecainide (b) Sotalol
(c) Lidocaine (d) Verapamil
53. The decreasing order of Narcotic action is
(a) Morphine, Codeine, Papaverine, Narcotine, Thebaine
(b) Morphine, Codeine, Thebaine, Papaverine, Narcotine
(c) Morphine, Papaverine, Codeine, Narcotine, Thebaine
(d) Morphine, Papaverine, Narcotine, Codeine, Thebaine
54. Which of the following pairs has an interaction beneficial for routine clinical use
(a) Pseudoephedrine and Al(OH)₃, gel
(b) Tetracycline and milk of magnesia
(c) MAO inhibitors and Tyramine
(d) Chloramphenicol and Tolbutamide
55. Tranexamic acid act as
(a) Haematenics
(b) Anticoagulant
(c) Plasminogen Inhibitor
(d) Plasminogen activator
56. Which of the followings used in the treatment of rheumatoid arthritis is NOT a biologic response modifier
(a) Anakinra (b) Leflunomide
(c) Etanercept (d) Infliximab
57. The category of sodium dihydrogen phosphate dehydrate is
(a) Antioxidant (b) Respiratory stimulant
(c) Urinary acidifier (d) Astrigent
58. Study the statements and choose the correct answer
[P] Nitroglycerin, related nitrates, and nitroprusside produce vasodilation by nitric oxide-dependent elevation of cyclic GMP in vascular smooth muscle
[Q] The pharmacologic effects of sildenafil, tadalafil, and vardenafil result from inhibition of the type 5 isoform of phosphodiesterase that inactivates cyclic GMP in the vasculature
(a) [P] is correct and [Q] is incorrect
(b) [P] is incorrect and [Q] is correct
(c) Both [P] and [Q] are correct
(d) Both [P] and [Q] are incorrect
59. which of the following antipsychotic drugs has high affinity for D₂ and 5-HT₂ receptors
(a) Droperidol (b) Clozapine
(c) Thiothixene (d) Risperidone
60. Accepted measure of anaesthetic potency
(a) Lipid solubility
(b) Speed of induction
(c) Presence of a "second gas effect"
(d) Minimum alveolar concentration (MAC value)
61. Which of following is triazine derivative
(a) Procarbazine (b) Cytarabine
(c) Dacarbazine (d) Carmustine
62. Match drugs with their receptor that they inhibit
- | | |
|-----------------------------------|-----------------|
| 1. 5HT _{1A} agonist | [P] Cisapride |
| 2. 5HT ₂ antagonist | [Q] Ketanserin |
| 3. 5HT ₂ antagonist 2A | [R] Ondansetron |
| 4. 5HT _{1A} agonist | [S] Buspirone |
- (a) 1-[S], 2-[R], 3-[Q], 4-[P]
(b) 1-[R], 2-[S], 3-[Q], 4-[P]
(c) 1-[P], 2-[R], 3-[S], 4-[Q]
(d) 1-[R], 2-[Q], 3-[P], 4-[S]
63. Vigabatrin is a GABA analogue that potentiates action of GABA in the brain because it
(a) Binds to GABA receptor and acts as agonist
(b) Inhibits GABA transaminase
(c) Blocks NMDA receptor via the glycine binding site
(d) Inhibits neuronal reuptake of GABA from synapses
64. Gynecomastia and menstrual irregularities are the adverse effects of
(a) Terbinafine (b) Flucytosine
(c) Griseofulvin (d) Ketoconazole
65. Receptor for which no endogenous mediator or ligand is at present known as
(a) Silent receptors (b) Spare receptors
(c) Orphan receptors (d) False receptors

66. **Therapeutic Index is**
 (a) ED 50/LD50 (b) LD 50/ED50
 (c) ED50-LD50 (d) ED50 × LD50
67. **Which of the following is true for α -Blocker, EXCEPT**
 (a) Blockade of vasoconstriction
 (b) Cause Nasal stuffiness and miosis
 (c) Increased intestinal motility
 (d) Tone of smooth muscle in bladder trigone, sphincter is increased
68. **Following is an example of preformed and not lipid derived most cell mediator of inflammatory process**
 (a) LTC4 (b) PGD2 (c) PAF (d) Kallidin

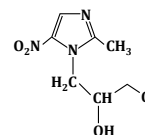
Pharmacognosy

69. **Who is known as the father of tissue culture**
 (a) Reinert (b) White
 (c) Haberlandt (d) Gautheret
70. **Biosynthesis of alizarin follows the**
 (a) Shikimic acid pathway (b) Mevalonic acid pathway
 (c) Both (a) and (b) (d) Acetate pathway
71. **Taxol is**
 (a) Monoterpenoid (b) Sesquiterpenoid
 (c) Diterpenoid (d) Triterpenoid
72. **Which of the following compound from marine source shows antiviral activity**
 (a) Aplysistain (b) Eudistomin
 (c) Aeropolysnin (d) Carrageenan
73. **Belladonna alkaloid contains**
 (a) Anisocytic stomata, non glandular trichomes, cluster calcium crystals, multilayered palisade cells
 (b) Anisocytic stomata, glandular trichomes, cluster calcium crystals, single layered palisade cells
 (c) Anisocytic stomata, glandular trichomes, acicular calcium crystals, single layered palisade cells
 (d) Anomocytic stomata, non glandular trichomes, cluster calcium crystals, single layered palisade cells
74. **Precursor of Anabasine is**
 (a) Lysine (b) Leucine
 (c) Phenylalanine (d) Tryptophan
75. **One of the following is not characteristic of mother clove**
 (a) Dark brown colour (b) Starch grain present
 (c) Starch grain absent (d) Inferior in volatile content
76. **Which of the herbal preparation metallic content in their formulation**
 (a) Asvas and Aristas (b) Bhasma
 (c) Churna (d) Avleha
77. **Given below are two statements one is labelled as Assertion (a) and the other is labelled as Reason [R]
 Assertion (a): After collecting cascara bark, it is allowed to stored for atleast 1 year
 Assertion [R]: Fresh bark containing Anthranol which causes gripping effect, can be oxidized to anthraquinone upon storage**

- (a) Both (a) and [R] are true but [R] is not correct reason for (a)
 (b) (a) is true but [R] is false
 (c) Both (a) and [R] are true and [R] is the correct reason for (a)
 (d) Both (a) and [R] are false

Pharmaceutical Chemistry

78. **The given structure shows is**



- (a) Metronidazole
 (b) Tinidazole
 (c) Ornidazole
 (d) Secnidazole
79. **IUPAC Name of Metronidazole is**
 (a) 1-methyl-5-nitroimidazole-2-ethanol
 (b) 2-methyl-5-nitroimidazole-1-ethanol
 (c) 5-methyl-1-nitroimidazole-2-ethanol
 (d) 1-methyl-2-nitroimidazole-5-ethanol
80. **Azithromycin is semisynthetic derivative of erythromycin and it is synthesized by using**
 (a) Hofmann rearrangement
 (b) Beckmann rearrangement
 (c) Benzilic acid rearrangement
 (d) Wetting rearrangement
81. **Perkin reaction is used for the synthesis of**
 (a) α, β -unsaturated Aldehyde
 (b) α, β -unsaturated Acid
 (c) α, β -unsaturated Ester
 (d) α, β -unsaturated Ketone
82. **Which of the following species is paramagnetic in nature**
 (a) Free radical (b) Carbonium ion
 (c) Carbanion (d) Singlet carbene
83. **The nucleophile attack on the carbon-carbon double bond generates**
 (a) Carbonium (b) Carbanion
 (c) Carbene (d) Free radical
84. **Isobutyl Benzene is starting material for**
 (a) Fentanyl (b) Ibuprofen
 (c) Pethidine (d) Diclofenac
85. **Photo toxicity of Sparfloxacin is lowest because of**
 (a) Presence of 5-Amino Group
 (b) Absence of 5-Amino Group
 (c) Presence of NO₂ Group
 (d) Absence of NO₂ Group
86. **The decreasing order of reactivity of the following compounds toward electrophiles is**
 [P] Pyrrole [Q] Thiophene [R] Pyridine
 (a) [P] > [Q] > [R] (b) [Q] > [P] > [R]
 (c) [R] > [P] > [Q] (d) [P] > [R] > [Q]
87. **Chlorothiazide, bendrothiazide, Benzothiazide are structurally similar & have the ring**
 (a) 5H-Dibenz (B, F) azepine (b) 1,2,4-Benzothiadiazine
 (c) Benzodiazepine (d) Phenothiazine

88. A class of pericyclic reaction is
(a) Hydroboration reaction (b) Riemeier-Tiemann reaction
(c) Grignard reaction (d) Diels-Alder reaction
89. Nifedipine contains _____ as a basic nucleus
(a) Pyrrole (b) Pyrimidine
(c) Pyridine (d) Pyrazine
90. What is the 6-methyl derivative of Erythromycin
(a) Azithromycin (b) Roxithromycin
(c) Clarithromycin (d) Clindamycin
91. Hydantoins differ from Barbiturates by
(a) Lacking the 3-oxo-group
(b) Lacking the NH-group
(c) Lacking the 6-oxo-group
(d) Lacking the 6-phenyl group
92. Diloxanide furoate is the derivative of
(a) Amide (b) Acid (c) Ester (d) Ether
93. For a spontaneous process
(a) $\Delta G = 0$ (b) $\Delta G = -Ve$
(c) $\Delta G = +Ve$ (d) None of these
94. Limit test is used to detect
(a) Purity (b) Heavy metals
(c) Pyrogen (d) All of these
95. Which of the following halogenated general anaesthetics have bromine in its structure
(a) Enflurane (b) Isoflurane
(c) Halothane (d) Sevoflurane
96. Warfarin contains
(a) 2-Hydroxy Coumarin (b) 4-Hydroxy Coumarin
(c) 2-Hydroxy Chromone (d) 4-Hydroxy Chromone
97. Baeyer's reagent is
(a) Alkaline KMnO_4 solution
(b) Acidic KMnO_4 solution
(c) Neutral KMnO_4 solution
(d) Aqueous bromine solution
98. Anti-Markovnikov's addition of HBr is not observed in
(a) Propene (b) Benzene (c) But-2-ene (d) Pent-2-ene
99. Ethyl alcohol is heated with conc. H_2SO_4 at 170°C . The product formed is
(a) $\text{CH}_3\text{COOCH}_3$ (b) C_2H_6
(c) C_2H_4 (d) C_2H_2
100. A reagent used to test for unsaturation of alkene is
(a) Conc. H_2SO_4 (b) Ammoniacal Cu_2Cl_2
(c) Ammoniacal AgNO_3 (d) Solution of Br_2 in CCl_4
103. Tailing of peak in GLC is reduced by
(a) Dimethyl silane (b) Tetramethyl silane
(c) Hexamethyl disilazene (d) Chromosorb W
104. C=O stretching is very strong and easily observable bands in IR spectroscopy. However in the IR spectrum of glucose C=O absorption band is not seen. Why
(a) In glucose, C=O group is not terminal
(b) In glucose C=O group is absent
(c) In glucose, hemiacetal group is present
(d) In glucose, hemiketal group is present
105. Adsorption indicators are used in
(a) Mohr's Method (b) Volhard Method
(c) Fajan's Method (d) Gay-Lussac Method
106. Eriochrome black-T at the end point shows color change from
(a) Wine red to blue (b) Violet to grey
(c) Blue to grey (d) Red to yellow
107. Methyl orange has acidic colour
(a) Red (b) Orange (c) Yellow (d) Blue
108. The technique in which the change in weight of the substance is recorded as a function of temperature or time is
(a) Ignition (b) Incineration (c) TGA (d) DTA
109. Which type of photon detector is commonly micro-fabricated into arrays of 500 or more individual detectors
(a) Photocell (b) Phototube
(c) Photomultiplier tube (d) Photodiode

Other Subjects

110. Which eye infection is also called as 'Pink Eye' infection
(a) Fungal keratitis (b) Viral keratitis
(c) Conjunctivitis (d) Myopia
111. Enzyme is isolated from *Thermus aquaticus*
(a) Taq polymerase (b) Taq Ligase
(c) Taq Kinase (d) Taq nuclease
112. BROWNE'S tubes are the most commonly used indicator for
(a) Ethylene oxide sterilization
(b) Radiation sterilization
(c) Heat process sterilization
(d) Filtration sterilization
113. Giemsa stain is used for staining of
(a) Neisseria (b) Malaria parasite
(c) Mycobacteria (d) Allin
114. Tyndallisation is
(a) 80°C for 30 min on three successive days
(b) 10°C for 20 min on three successive days
(c) 60°C for 20 min on three successive days
(d) 120°C for 20 min on three successive days
115. Which of the following free radical is most dangerous free radical
(a) O^\cdot (b) H^\cdot (c) H_2O_2 (d) Superoxide

Pharmaceutical Analysis

101. Bio-Gel is Chemically
(a) Dextran (b) Agarose
(c) Polyacrylamide (d) Copolymer-ionexchanger
102. A molecule leak is used for
(a) Introducing the sample
(b) Determining the amount of sample introduced
(c) Metering the sample to ionization chamber
(d) Pumping action

116. In peptide chemistry phenyl isothiocyanate is used

- (a) For identifying the C-terminal residue of a peptide chain
- (b) For identifying the N-terminal residue of a peptide chain
- (c) For projection of the amino group in peptide synthesis
- (d) As a reagent for bringing about coupling between the carboxyl and amino group in peptide synthesis

117. Viroids differ from viruses in

- (a) Naked DNA molecules
- (b) Satellite RNA packaged with viral genome
- (c) Naked RNA molecules only
- (d) Naked DNA packaged with viral genome

118. Which of the following amino acid is not aliphatic amino acid

- (a) Leucine
- (b) Valine
- (c) Tryptophan
- (d) Isoleucine

119. Bacillus subtilis is used in assay of which antibiotics

- (a) Penicillin
- (b) Cephalosporin
- (c) Vancomycin
- (d) Streptomycin

120. Which is a secretory antibody

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

121. Neutral thio ether aliphatic amino acids found in protein is

- (a) Cystiene
- (b) Leucine
- (c) Methionine
- (d) Glycine

122. Beta ionine is starting material for synthesis of

- (a) Vitamin K
- (b) Vitamin B1
- (c) Vitamin A
- (d) Vitamin D

123. In electrophoresis, DNA will migrate towards

- (a) The cathode or positive electrode
- (b) The cathode or negative electrode
- (c) The anode or positive electrode
- (d) The anode or negative electrode

124. Which is the final step in the construction of a recombinant molecule

- (a) Plasmid isolation
- (b) Gene amplification
- (c) Restriction digestion
- (d) Ligation

125. Which of the following test is used for differentiation of mycobacteria

- (a) Niacin test
- (b) Aryl sulfatase test
- (c) Nitrate reaction test
- (d) Amidase

Answer Key

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





COD AVAILABLE ON

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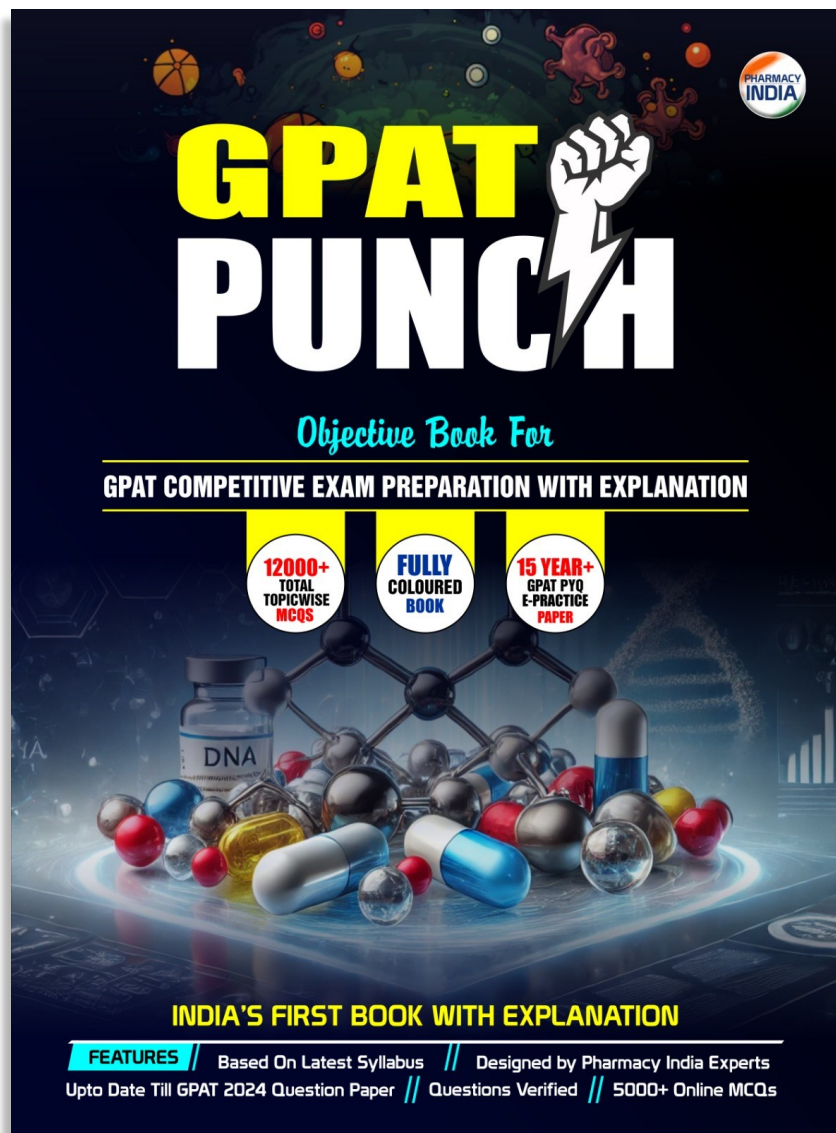
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