GATE-2003

1. **Colchicine is biogenetically derived from one of the following**
   (a) Tyrosine and Phenylalanine
   (b) Tryptophan and Phenylalanine
   (c) Ornithine and Tryptophan
   (d) Ornithine and Phenylalanine

2. **The diagnostic character for the microscopically identification of Kurchi bark is**
   (a) Fibers with Y-shaped pits
   (b) Horse shoe shaped stone cells
   (c) Steroids containing calcium oxalate crystals
   (d) Stratified cork

3. **It is possible to initiate the development of complete plants from callus cell cultures by suitable manipulation of the medium with respect to**
   (a) Minerals (b) Vitamins
   (c) Carbohydrates (d) Hormones

4. **Polyploidy is defined as**
   (a) Addition of one chromosome
   (b) Multiplication of entire chromosome set
   (c) Submicroscopic change in DNA material
   (d) Gross structural change

5. **The starting material for the synthesis of Alprazolam is**
   (a) 3 amino 5 bromoacetophenone
   (b) 2 amino 5-chloroacetophenone
   (c) 2 amino 5-chlorobenzophenone
   (d) 3-amino 5 chlorobenzophenone

6. **Simplification of Morphinan system gave one Benzomorphan derivative**
   (a) Pentazocin (b) Pethidine
   (c) Levorphanol (d) Buprenorphine

7. **A metabolite of Spironolactone is**
   (a) Aldosterone (b) Canrenone
   (c) Corticosterone (d) Pregnenolone

8. **The IUPAC name for Naproxen is**
   (a) 4-2-(6-ethoxy-2-naphthyl)-acetic acid
   (b) 4-2-(6-methoxy-2-naphthyl)-acetic acid
   (c) 4-2-(6-ethoxy-2-naphthyl)-propionic acid
   (d) 4-2-(6-methoxy-2-naphthyl)-propionic acid

9. **The metabolic function of Riboflavin involves the following**
   (a) FMN and FAD (b) NADP and NADPH
   (c) AMP and ATP (d) Retin and Retinine

10. **X-ray spectral lines K_a doublet arises from transition of electrons from**
    (a) M shell to K shell
    (b) L shell to K shell
    (c) L shell to M shell
    (d) M shell to L shell

11. **The method of expressing magnetic field strength**
    (a) Cycles/sec (b) Pulses/sec
    (c) Debye unis (d) Gauss

12. **A solvent used in NMR studies is**
    (a) Chloroform (b) Acetone
    (c) Carbon tetrachloride (d) Methanol

13. **A widely accepted detector electrode for pH measurement is**
    (a) Platinum wire (b) Glass electrode
    (c) Ag-AgCl electrode (d) Lanthanum fluoride

14. **Commercial production of citric acid is carried out by the microbial culture of**
    (a) Fusartum moniliforme (b) Rhizopus nigrican
    (c) Aspergillus Niger (d) Condido utilis

15. **For thermophilic micro – organisms, the minimum growth temperature required is**
    (a) 20°C (b) 37°C (c) 45°C (d) 65°C

16. **Obligatory anaerobes**
    (a) Can tolerate oxygen and grow better in it presence
    (b) Do not tolerate oxygen and die in its presence
    (c) Can grow in oxygen levels below normal
    (d) Can grow in presence of atmospheric oxygen

17. **Plasmid is a**
    (a) Macromolecule involved in the protein synthesis
    (b) Circular piece of duplex DNA
    (c) A hybrid DNA that is formed by joining pieces of DNA
    (d) Endogenous substance secreted by one type of cell

18. **Lactose intolerance is because of the lack of**
    (a) Acid phosphates
    (b) Lactate dehydrogenase
    (c) Galactose-1-phosphate-uridyl transferase
    (d) Amylase

19. **Synthesis of UREA takes place exclusive in**
    (a) Kidney (b) Liver
    (c) Gall bladder (d) Urinary bladder

20. **A term which describes a cofactor that is finally bound to an apoenzyme**
    (a) Holoenzyme (b) Prosthetic group
    (c) Coenzyme (d) Transferase

21. **How many parts of 10% ointment be mixed with 2 parts of 15% ointment to get 12% ointment**
    (a) 2 (b) 3 (c) 5 (d) 6

22. **The correct non ionic surfactant used as a penetration enhancer in the preparation of mucoadhesives is**
    (a) Oleic acid
    (b) Tween-80
    (c) Glycerol
    (d) Propylene glycol

23. One of the es afficto remfrer of the Pharmary Council of India is
(a) Director General of Health Services
(b) Government Analyst
(c) Registrar of the State Pharmacy Council
(d) Director General of Veterinary Research Institute

24. The Schedal in Drugs and Commetics Act that deal with the requirements and guidelines for clinical trials, import and manufacture of new drugs is
(a) Schedule O (b) Schedule M
(c) Schedule F (d) Schedub V

25. A retardant material that forms a hydrophilic matrix in the formulation of matrix tablets is
(a) H.P.M.C (b) C.A.P
(c) Polyethylene (d) Carnauba wax

26. Adrug which of the therapy causes pink to brownish skin pigmentation within a weeks of the initiation of the therapy is
(a) Itracunazole (b) Clofazimine
(c) Lomefloxacin (d) Neomycin

27. The risk of Digitalis toxicity is significantly increased by concomitant administration of
(a) Triamterene (b) Lidocaine
(c) Captopril (d) Hydrochlorthiazide

28. An agent used in Prinzmetal angina has spasmolytic action which increases coronary blood supply is
(a) Nitroglycerine (b) Nifedipine
(c) Timolol (d) Isosorbide mononitrate

29. An organism which has been implicated as a possible cause of chronic gastritis and peptic ulcer is
(a) Campylobacter jejuni (b) Escherichia coli
(c) Helicobacter pylori (d) Giardia lambia

30. A $5HT_{1D}$ receptor agonist useful in migraine is
(a) Sumatriptan (b) Ketanserin
(c) Ergotamine (d) Methysergide

31. At present, different species of Papaver such as P. Oriental are being cultivated instead of P.somniferum because they contain
(a) More of Morphine (b) Less of Morphine
(c) Only Codeine (d) Only Thebaine

32. Guggulipid, a resin is
(a) A hypolipidemic agent obtained from cotton plants containing multifunctional compound (±) Gossypol
(b) A lipid obtained from Arctium lappa. Asteraceae traditionally used for the treatment of dermatoses
(c) Cathartic glucoresin obtained from Ipomoea orizobensis and used since ancient time
(d) A hypoliptomic agent obtained from Commiphora mukul consisting of mixture of sterols inchiding Z pregna-(20)- diene-3 16 diene

33. In Nitrofurantoin synthesis, 5-nitrofurfuraldehyde diacetate is treated with one of the following intermediate in presence of $CH_3COOH + H_2SO_4 + C_2H_2OH$
(a) Hydantoin (b) 1-5-diamino hydantoin
(c) 1-3-diamino hydantoin (d) 1-amino-hydantoin

34. 4-hydroxy-3-hydroxymethyl benzaldehyde is treated with acetic anhydride and then kept with ether solvent, t-butyl cyanide and acetic acid for ten days. Resulting compound is reduced with $LiAlH_4$ in tetra hydrofuran. The final product is
(a) Isoprenaline (b) Dobutamine
(c) Salbutamol (d) Orciprenaline

35. 2-iminothiazolidine is treated with phenyloxirane to get a drug used in roundworm infection is
(a) Piperazine (b) Tetramisole
(c) Thiabendazole (d) Levamisole

36. Thiamine treatment with alkaline potassium ferricyanide gives
(a) Thymochrome with fluorescence
(b) Oxythiamine with golden yellow color
(c) Neopyrithiamine with orange yellow color
(d) Thiochrome with blue fluorescence

37. A new drug delivery system which is composed of phospholipids that spontaneously form a multilamellar,concentric bilayer vesicles with layers of aqueous media separating the lipid Layers is
(a) Prodrugs (b) Liposomes
(c) Osmotic pumps (d) Hanoparticles

38. Unless otherwise stated in the individual monograph of the pharmacopoeia in the disintegration test for enteric coated tablets, first the dissolution is carried out in
(a) 0.1 N HCI (b) Phosphate hofter
(c) Water (d) 0.1N H_2SO_4

39. What is the proportion of NaCl required to render a 15% solution of drug isotonic with blood plasma? The freezing point of 1% w/v solution of drug is 0122°C and that of NaCl is 0.576"C
(a) 0.65% (b) 0.585% (c) 0.9% (d) 0.5%

40. IR Spectra appear as dips in the curve rather than maxima as in UV-Visible spectra because it is a plot of
(a) % Absorbance against wave number
(b) % Transmittance against concentration
(c) % Absorbance against concentration
(d) % Transmittance against wave number

41. ESR is applied to only those substances showing paramagnetism which is due to the magnetic moments of
(a) Neutrons (b) Protons
(c) Paired electrons (d) Unpaired electron

42. Rotation of electrons about the proton generates a secondary magnetic field which may oppose the applied magnetic fickt The proton is then said to be
(a) Shielded (b) Shifted
(c) Hydrogen (d) Deshielded

43. The analyte is used in the form of a solution in flame photometry because it should undergo
(a) Evaporation (b) Condensation
(c) Nebulization (d) Precipitation

44. The mechanism of antiparasitic action of Mebendazole and Thiabendazole involves

(a) Stimulation of Acetylcholine receptors at neuromuscular junctions
(b) Inhibition of dihydrofolate reductase
(c) Interference with microtubule synthesis and assembly
(d) Block thiamine transport

45. Isoniazid is a primary anti-tubercular agent that
(a) Requires pyridoxine supplementation
(b) Causes ocular complication that are reversible if the drug is discontinued
(c) Is ototoxic and nephrotoxic
(d) Should never be used due to its hepatotoxicity potential

46. Decreased risk of atherosclerosis is associated with increase in
(a) Very low density lipoproteins
(b) Low density lipoproteins
(c) Cholesterol
(d) High density lipoproteins

47. The mechanism of action of Paclitaxel is
(a) Bind to DNA through intercalation between specific bases and block the synthesis of new RNA or DNA, cause DNA strand scission
(b) Mitotic spindle poison through the enhancement of tubulin polymerization
(c) Competitive partial agonist inhibitor of estrogen and binds to estrogen receptors
(d) S-Phase specific antimetabolite that is converted by deoxykinase to the 5'-mononucleotide

48. Lycopodium spore method can be used to find out percentage purity of crude drug which contain
(a) Multi-byered tissues or cells
(b) Well defined particks which can be counted
(c) Oil globuks
(d) Characteristic particles of irregular thickness the length of which can measured

49. The microscopical character flower buds of Eugenia caryophyllus is
(a) Collenchymatous parenchyma containing in its outer part numerous ellipsoidal schizolysigenous oil glands
(b) Small translucent endosperm containing aleurone grains
(c) Wide parenchymatous starchy cortex, the endosperm containing volatile oil
(d) Outer surface consisting of external perisperm, rough, dark brown with reticulate furrow

50. In protein biosynthesis, each amino acid
(a) Recognises its own codon by a direct interaction with the in RNA template
(b) Is added in its proper place to a growing peptide chain through "adaptor" function of tRNA
(c) Is first attached to an anti codon specific for the amino acid
(d) Undergoes fidelity translation which is assured by the presence of traces of DNA on the ribosome

51. Rabies Antiserum I. P. is
(a) A freeze dried preparation containing antitoxic globulins
(b) A preparation containing specific globulin or its derivatives obtained by purification of hyperimmune serum or plasma of healthy horses
(c) A sterile preparation containing antitoxic globulin
(d) A sterile preparation containing antioxic globulin obtained by purification of hyper immuneserum of horses

P.Q. R. S are the options. Two of these options are correct. noose the correct combination from among the alternatives a.b.cand.d

52. Total ash value in case of crude drug signifies
[P] Organic content of the drug
[Q] Mineral matter in the drug
[R] Addition of extraneous matter such as sand, stone etc
[S] Woody matters present in the drug
(a) [Q], [S] (b) [Q], [R] (c) [P] ,[Q] (d) [P], [S]

53. The compounds listed below contain σ, π and n electrons
[P] Acetaklehyde **[Q]** Butadiene
[R] Formaldehyde **[S]** Benzene
(a) [Q], [S] (b) [Q], [R] (c) [P], [R] (d) [P], [S]

54. A 60 year old patient presents with ghucoma Therapy should include
[P] Topical Atropine **[Q]** Topical Pilocarpine
[R] Oral Acetazolamide **[S]** Oral Pilocarpine
(a) [P], [Q] (b) [Q], [R] (c) [R], [S] (d) [P], [S]

55. Measurement of particle size in pharmaceutical Aerosols is by
[P] Cascade impactor **[Q]** Light scatter decay
[R] Karl Fischer method **[S]** IR spectrophotometry
(a) [P], [Q] (b) [Q], [R] (c) [R], [S] (d) [P], [S]

56. The common attributes of ascorbic acid, an antiscorbutic vitamin, are
[P] Exist in nature in both reduced and oxidized form and in a state of reversible equilibrium
[Q] Has keto-enol system in the molecule
[R] Has an aldehyde group since it gives positive schiff's reaction
[S] Salt forming properties are due to the presence of the free carboxyl group
(a) [P], [S] (b) [Q], [R] (c) [R], [S] (d) [P], [Q]

57. Two properties of Radiopharmaceuticals are
[P] Slow localization in target issue
[Q] Very long half life to provide enough exposure to get imaging information
[R] Short half life to minimise radiation exposure yet long enough to get imaging information
[S] Rapid localization in target tissue and quick clearance from non-target organs
(a) [P], [Q] (b) [Q], [R] (c) [R], [S] (d) [P], [S]

58. Two correct statements concerning vitamin D are
[P] The active molecule 1,25-dihydroxy chokcakiferol binds to intracellular receptor proteins
[Q] Cholecalciferol is found in vegetables
[R] 1,25-dihydroxy D3 is the potent vitamin D metabolite
[S] It is required in the diet of individuals exposed to sunlight

(a) [P], [S] (b) [P], [R] (c) [R], [S] (d) [Q], [S]

59.

Group 1 (Tablet Additives)	Group II (Examples)
1. Binder	[P] Acacia
2. Insoluble	[Q] Light mineral oil
3. Film coating material	[R] Hydroxy ethyl cellulose
4. Direct compression diluents	[S] Microcrystalline cellulose

(a) 1-[Q], 2-[P], 3-[R], 4-[S]
(b) 1-[R], 2-[Q], 3-[P], 4-[S]
(c) 1-[S], 2-[R], 3-[Q], 4-[P]
(d) 1-[P], 2-[S], 3-[R], 4-[Q]

60.

Group I (IR Detectors)	Group II (Composition)
1. Thermocouple	[P] Oxides of Mn, Co and Ni
2. Pyroelectric Detector	[Q] Bi-Sb
3. Gokay cells	[R] Xenon
4. Thermistor	[S] Triglycine sulphate

(a) 1-[S], 2-[Q], 3-[R], 4-[P]
(b) 1-[R], 2-[P], 3-[S], 4-[Q]
(c) 1-[P], 2-[R], 3-[Q], 4-[S]
(d) 1-[Q], 2-[S], 3- [R], 4-[P]

61.

Group 1 (Alkaloid)	Group II (Composition)
1. Confine	[P] Isoquinoline
2. Papaverine	[Q] Pyridine-Piperdine
3. Anabasine	[R] Yohimbane
4. Reserpine	[S] Piperidine

(a) 1-[Q], 2-[R], 3-[P], 4-[S]
(b) 1-[R], 2-[P], 3-[S], 4-[Q]
(c) 1-[S], 2-[P], 3-[Q], 4-[R]
(d) 1-[Q], 2-[S] 3-[R], 4-[P]

62.

Group I (Immunoglobulins[Ig])	Group II (Actions)
1. IgG	[P] Agglutination and cytolysis
2. IgA	[Q] Antiallergic
3. IgM	[R] Neutralises toxins
4. IgE	[S] Antimicrobial

(a) 1-[S], 2-[R], 3-[Q], 4-[P]
(b) 1-[R], 2-[P], 3-[S], 4-[Q]
(c) 1-[Q], 2-[R], 3-[S], 4-[P]
(d) 1-[Q], 2-[P], 3-[S], 4-[R]

63.

Group I (Antibiotics)	Group II (Microrganism used in the I.P. assay)
1. Streptomycin	[P] Bacillus cereus
2. Rythromycin	[Q] Staphylococcus
3. Gentamycin	[R] Klebsiella pneumoniae
4. Tetracycline	[S] Antimicrobial

(a) 1-[S], 2-[R], 3-[P], 4-[Q]
(b) 1-[R], 2-[S], 3-[Q], 4-[P]
(c) 1-[R], 2-[Q], 3-[P], 4-[S]
(d) 1-[R], 2-[S], 3-[P], 4-[Q]

64.

Group 1 (Synthetic estrogenic drug)	Group II (Methods of synthesis)
1. Ethinyl Estradiol	[P] 4'4, Dimethoxy of benzophenone is treated with 4-methoxy bensoyl chloride + Mg, resulting product is treated with PTS followed by CI_2 + CCI_4
2. Dienoestrol	[Q] Deoxy anisoin is alkylated and product subjected to Grignard reaction, the resulting tertiary akehol is dehydrated and demethylated with alcoholic KOH
3. Chlorotrainisine	[R] By pinacol reduction of p-hydroxy propiophenone and subsequent removal of water
4. Stilbestrol	[S] From Estrone by the action of Potassium acetylide

(a) 1-[S], 2-[R], 3-[P], 4-[Q]
(b) 1-[S], 2-[P], 3-[R], 4-[Q]
(c) 1-[P], 2-[S], 3-[Q], 4-[R]
(d) 1-[R], 2-[P], 3-[S], 4-[Q]

65.

Group 1 (Immunosuppressants)	Group II (Mechanism of action)
1. Azathioprine	[P] Destroys proliferating lymphoid cell
2. Tacrolimus	[Q] Prodrug to mercaptopurine which on further conversion inhibits purine metabolism
3. Glucocorticoids	[R] Inhibits the cytoplasmic phosphatase Cakineurin
4. Cyclophosphamide	[S] Interferes with the cell cycle of activated lymphoid cell

(a) 1-[R], 2-[Q], 3-[P], 4-[S]
(b) 1-[Q], 2-[R], 3-[S], 4-[P]
(c) 1-[Q], 2-[P], 3-[R], 4-[S]
(d) 1-[S], 2-[R], 3-[Q], 4-[P]

DATA FOR (Q.66-68)

Leaves of Digitalis Purpurea were subjected to morphological, microscopical and chemical screening

66. **Morphological character with respect to the leaf is**
(a) Ovate lanceolate with entire margin:
(b) Ovate lanceolate with crenate margin
(c) Linear lanceolate with serrate margin
(d) Linear laceolate with sinuate is margin

67. Morphological character of trichomes with respect to the leaf is
(a) Unicellular, warty
(b) Multicellular, uniseriate with 10-14 cell
(c) Multicellular, uniseriate with 3-5 celk
(d) Multicelluhr, multiseriate with 10-14 cell

68. The drug gives positive
(a) Borntrager's test (b) Murexide test
(c) Legal's test (d) Thalkoquin test

DATA FOR (Q.69-70)

In a synthetic procedure 5 chloro-2,4 diamino sulfomyl aniline is treated with P to obtain 7 amino sulfomyl 6-chloro-3-chloro-methyl-2H-1,2,4-benzothiadiazin-1, 1 dioxide. Subsequent it is refluxed with C_6H_5-CH_2-SH+NaOH+DMF to yield Y

69. Select the reagent P
(a) Chloroacetyklehyde (b) Formaldehyde
(c) Formic acid (d) Acetaldehyde

70. The final product Y is
(a) 3 benzyl methyl-6-chloro-2H-1, 2, 4-benzothiadiazine-7-sulphonamide 1, 1-dioxide
(b) 3-benzyl thiamethyl-6 chloro 211-1, 2, 4-benzothiadiazine 7-sulphonamide 1, 1-dioxide
(c) 3-benzyl thiomethyl-5-chloro-2H-1, 2, 3 benzothiadiazine 7-sulphonamide1, 1-dioxide
(d) 3 benzyl thiomethyl 5-chloro-2H 1, 2, 3-benzothiadiazine 7-sulphonamide1, 1-dioxide

DATA FOR (Q.71-73)

Proguanil is synthesized by diazotization of p-chloroaniline and treating with dicyandian to yield p chlorophenyl dicyandiamide which is converted to Proguanil by reaction with aliphatic amine. Proguanil is metabolized to a triazine derivative which is an active metabolite

71. What is the reagent used for diazotization
(a) $NaNO_2$+ dilute HCI (b) KNO_3+ dilute H_2SO_4
(c) Zn + dilute H_2SO_4 (d) Tin H_2SO_4

72. Name the aliphatic amine used
(a) Dimethylamine (b) Isopropylamine
(c) Isobutylamine (d) Diethylamine

73. Name the metabolite
(a) Thioguanil (b) Diguanil
(c) Cycloguanil (d) P-chlorphenyl biguanide

DATA FOR (Q.74-76)

Calculate the λ_{max} for the following compounds. Base value for Benzaldehyde in ethanol is 250 nm

74. λ_{max} of p-bromobenzaldehyde in nm is
(a) 265 (b) 255 (c) 275 (d) 260

75. λ_{max} of p-hydroxy benzaldehyde in nm is max
(a) 253 (b) 275 (c) 261 (d) 270

76. λ_{max} of o-chlorobenzaldehyde in nm is
(a) 275 (b) 265 (c) 255 (d) 250

DATA FOR (Q.77-78)

In the assay of Folic acid LP. a weighed quantity is dissolved in 0.1 M NaOH solution and subsequently treated with Zn and HCl The resulting product is mixed with ammonium phate.kept for 2 minutes and a reagent is added to get final colored product whose absorbance is measured

77. Select the product obtained when folic acid is heated with Zn HC
(a) Benzoic acid (b) P-aminobenzoic
(c) Glutamic (d) Succinic acid

78. Select the reagent used for the development of color
(a) N 1 napthyl ethylene diamine dihydrochloride
(b) Ninhydrin reagent
(c) Pdimethyl amino benzaklehyde
(d) Phloroglucinol

DATA FOR (Q.79-80)

Parkinsonism is a common neurological movement disorder Signs include rigidity of skeletal musck, akinesia, flat facies and tremors at rest. Both 1-DOPA and Carbidopa are used

79. Carbidopa is used because
(a) It crosses blood brain barrier
(b) It inhibits aromatic L-amino acid decarboxylase
(c) it inhibits MAO type A
(d) It inhibits MAO type B

80. Select the specific unwanted effect of L-DOPA
(a) Dementia (b) Hypertension
(c) Dyskinesia (d) Excitotoxicity

DATA FOR (Q.71-82)

The decomposition of a drug in aqueous acid solution was found to follow first order reaction The initial concentration was found to be 0.056 M. The concentration after a period of 12 hours was 4.10×10^{-2} moles/liter. The reaction rate constant is 0.02599 hr^{-1}

81. What is the quantity of drug remaining undecomposed after 8 hours
(a) 0.455 moles/liter (b) 0.25 moles/liter
(c) 0.0455 moles/liter (d) 0.10 moles/liter

82. What is the amount of drug deteriorated during the period of 24 hours
(a) 0.026 moles/liter
(b) 0.0026 moles/liter
(c) 0.03 moles/liter
(d) 0.053 moles/liter

DATA FOR (Q.83-85)

In a formulation development laboratory, you have to formulate an oral dosage form containing olive oil Vitamin A and water

83. Suggest a suitable dosage form
(a) Solution (b) Suspension
(c) Emabion (d) Capsul

84. Suggest a substance incorporated into be the formulation
(a) Glycerin (b) Acacia (c) Cetrimide (d) Alcohol

85. Select one of the appropriate labelling directions
(a) Keep in the refrigeratur (b) No-preservatives
(c) Schedule G (d) Shake well before use

DATA FOR (Q.86-87)

Successive solvent extraction of a crude drug with petroleum ether,benzene, chloroform, ethyl akohol and water performed Qualitative chemical testing of petroleum ether extract gave positive Keller killani and Salkowski's reaction. Ethyl akohol and aqueous extract gave positive Fell, reaction and aqueous extract gave foamy solution

86. What constituents are present in the petroleum ether/ benzene extract
(a) Plant sterols (b) Trupane slkaloids
(c) Sesquiterpenoids (d) Purines

87. What constituents are present in the ethyl akohol and aqueous extracts
(a) Plant lipids
(b) Anthraquinone glycosides
(c) Allakoids
(d) Plant phenols and saponins

DATA FOR (Q.88-90)

A business executive while playing tennis complained of chest pain and was broughtemergency room. He has history of mikl hypertension and elevates bood cholesterol EC changes confirmed the diagnosis of myocardial infarction. The decision is made to open h occluded artery by using thrombolytic agent and also use Aspirin later

88. The thrombolytic agent used is
(a) Heparin (b) Warfarin
(c) Anistreplase (d) Vit K

89. Mechanism of action of Aspirin is
(a) Inhibit vitamin K absorption
(b) Antithrombin activity
(c) Inhibit metabolism of Heparin
(d) Inhibit platelet aggregation

90. Mechanism of action of antithrombic agent is
(a) Conversion of plasminogen to plasmin
(b) Activation of clotting factors
(c) Inhibit platelet function
(d) Agonist of vitamin K

Answer Key

1-a	2-b	3-d	4-b	5-c	6-a	7-b	8-d	9-a	10-b
11-d	12-c	13-b	14-c	15-c	16-b	17-b	18-b	19-b	20-b
21-c	22-b	23-a	24-d	25-a	26-b	27-d	28-d	29-c	30-a
31-d	32-d	33-d	34-c	35-b	36-d	37-b	38-a	39-b	40-d
41-d	42-a	43-c	44-c	45-a	46-d	47-b	48-b	49-a	50-b
51-b	52-b	53-c	54-b	55-a	56-d	57-b	58-b	59-d	60-d
61-c	62-b	63-b	64-a	65-b	66-b	67-c	68-c	69-d	70-b
71-a	72-b	73-c	74-a	75-b	76-d	77-b	78-a	79-b	80-c
81-c	82-b	83-c	84-b	85-d	86-a	87-d	88-c	89-d	90-a

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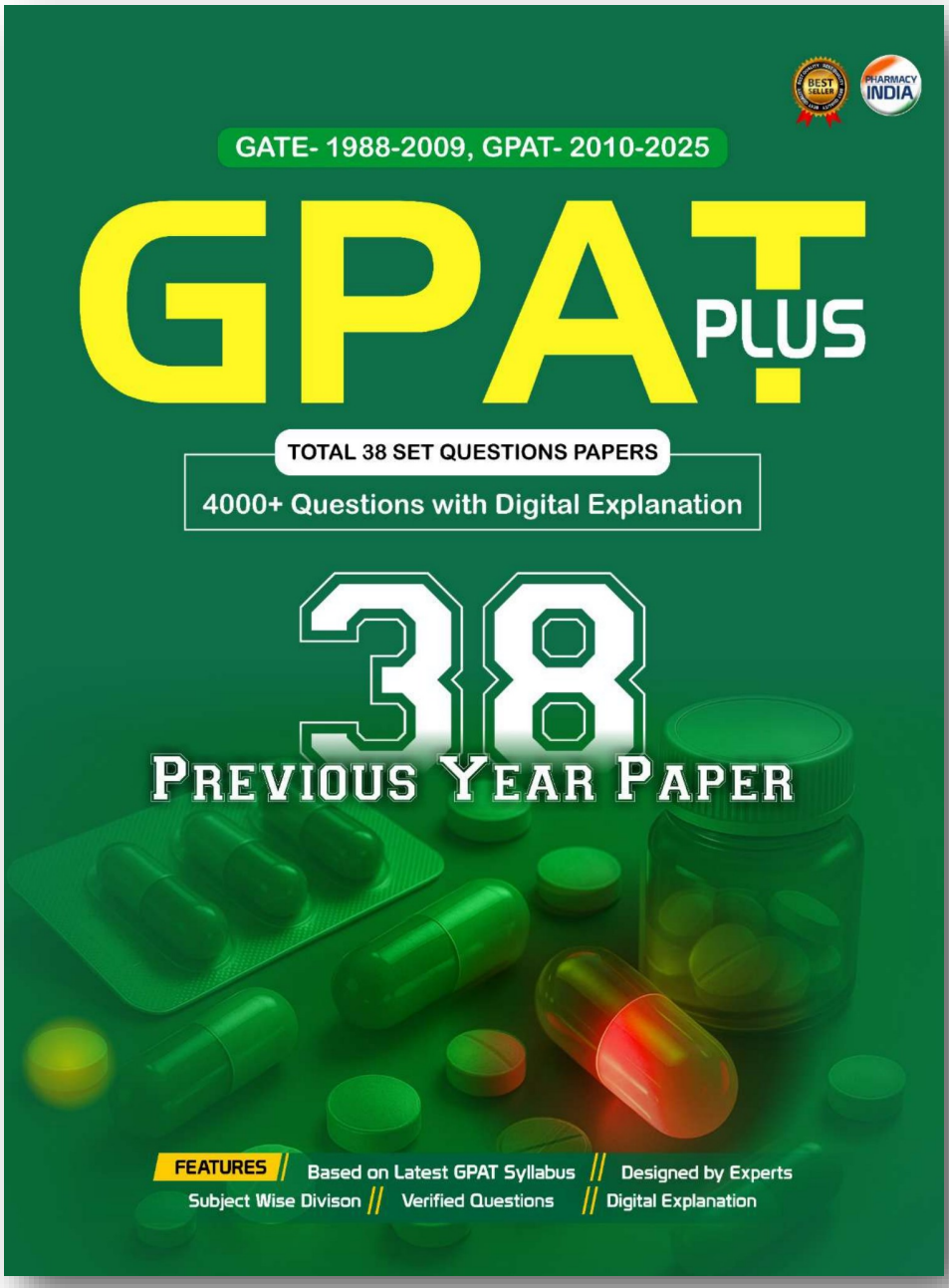

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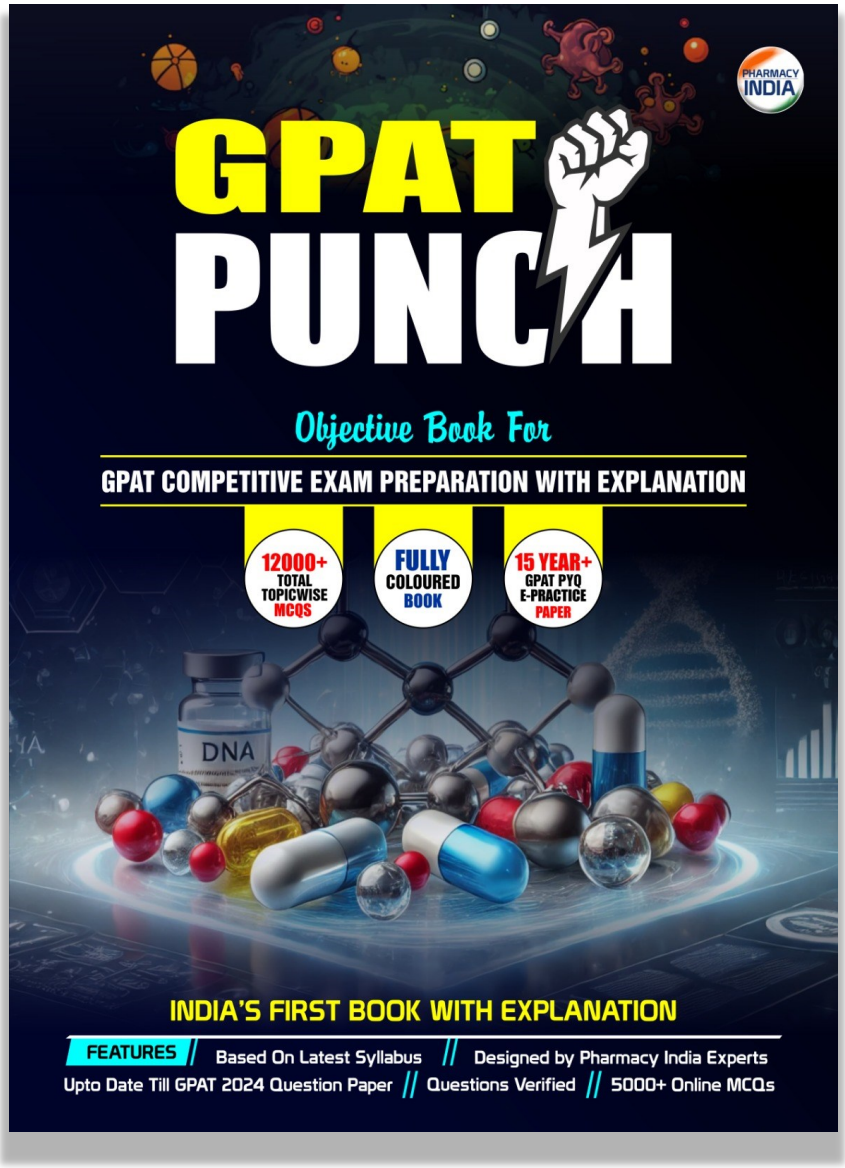

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