GATE-2007

Pharmaceutics

1. **The characteristic odour of onion bulbs is attributed to**
   (a) Quercetin glycosides
   (b) Furostanol glycosides
   (c) Heterogeneous sulphated polysaccharides
   (d) Alkyl or alkenyl disulphides

2. **The chief constituent of the seeds strophanthus gratus wds of Anther impers belonging to the family Apocynace is G-straphantine On hydrolysis, it gives**
   (a) Scillarenin (b) Ouabagenin
   (c) Cannogenin (d) Digi

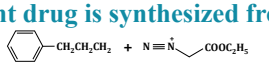
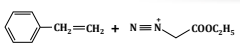
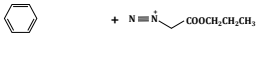
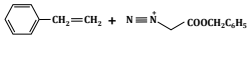
3. **The duration of action of sublingual Nitroglycerin tablet is**
   (a) 8-10 hours (b) 4-8 hours
   (c) 10-30 minutes (d) 3-5 minutes

4. **Identify the adrenergic receptor, whose agonists can be misused by sportoman for anabolic effects**
   (a) α_1 (b) α_2 (c) β_1 (d) β_2

5. **When the urinary pH becomes 80, significant increase in the excretion of the drugs takes place**
   (a) Mepyramine (b) Aspirin
   (c) Morphine (d) Mecamylamine

6. **Condensation of 6-hydroxy 24,5-tri aming pyridine with 1.1.3-trichloroacetone and N-(4-aminobenzoyl) glutamic acid at pli 4 to 5, in the presence of sodium bisulphate gives**
   (a) Pteroyl glutamic acid (b) Amethopterin
   (c) Triamterene (d) Acyclovir

7. **The common structural feature of lodoxamic acid totalamic acid Diatrizoic acid and locarmic acid is**
   (a) Sulphonaphthakin
   (b) 2,4,6-tri-iodo benzoic acid
   (c) Tri-iodo triphenyl methanoic acid.
   (d) Tri-lodo diphenyl methanoic acid

8. **Tranykypromine, a psychoanaleptic and antidepressant drug is synthesized from**
   (a) 
   (b) 
   (c) 
   (d) 

9. **List of diseases and ailments which a drug may not purport to prevent or cure ormake claims to prevent or Cure under the Drugs and Cosmetics Rule 1945 is given under**
   (a) Schedule J (b) Schedule K
   (c) Schedule M (d) Schedule P

10. **Annatto consists of the dried seeds of Bisa oreline Family Bisaceae. The chief constituent is**
    (a) Trimrpene alcohol (b) Crocin and Crocetin
    (c) Capsanthin (d) Carotenoids

11. **Cresel with soap solution is a preparation, in which soap is incorporated to**
    (a) Impart detergent property
    (b) Improve mutual miscibility of Cresol and water by reducing critical solution temperature of Cresol water system
    (c) Sustain the germicidal action of Cresol
    (d) Improve the stability of Cresol

12. **When stoichiometric amount of $CaCl_2$ is added to an emulsion stabilized with sodium alginate, it will**
    (a) Crack immediately
    (b) Change the nature from w/o to o/w
    (c) Change the nature from o/w to w/o
    (d) Accelerate the phenomenon of ostwald ripening

13. **Chlorine and bromine substitution in aromatic compounds**
    (a) Enhances fluorescence
    (b) Does not change the fluorescence
    (c) Quenches the fluorescence
    (d) Removes the fluorescence elution, involves

14. **Solvent programming also called gradient**
    (a) Changing the column length
    (b) Changing the mobile phase composition
    (c) Using the mobile phase is unchanged
    (d) Successive injection of sample

15. **Calibration of the cell constant of conductance cell is carried out by using a solution**
    (a) 0.1 M NaCl (b) 0.1 M $CaCl_2$
    (c) 0.1 M KCI (d) 0.1 M $AICI_3$

16. **Hybridoma technology is widely used for producing**
    (a) Callus culture
    (b) Organ culture
    (c) Monoclonal antibodies
    (d) Attenuated microorganism

17. **Gene therapy refers to the process of**
    (a) Identifying disease causing genes and activating them for therapeutic benefits
    (b) Increasing the expression levels of the set of genes involved in a given disease in affecte cells through selective modulating agents
    (c) Transfer of new genetic material to the cells of an individual for therapeutic benefit
    (d) Removal of the protein corresponding to the disease cucing gets from the cells of the affected individual

18. **A technician attempting a sterilize a plug of cotton in bermetically sealed condition in a glass bottle by autoclaving. Which of the following statement is correct**

(a) It shoull be sterilized at 115-118°C for 30 minutes
(b) It should be steriled at 121-124°C for 15 minutes at 15 lbs/sq. inch pressure
(c) serilitation cannot be achieved
(d) It should be autoclaved at 126-129°C with saturated steam for 10 minutes

19. Hyperuricaemia is associated with the abnormal metabolism of
(a) Pyrimidine (b) Purine
(c) Riboflavin (d) Thiamine

20. What is the concentration of NaCl required making 1% solution of Cocaine HCI Isotonic with blood plasma. Freezing point of 1% w/v solution of NaCl is 0.576°C and freezing point of 1% w/v Cocaine HCI is 0.09°C
(a) 0.746% w/v (b) 0.9% w/v
(c) 00.5% w/v (d) 0.373% w/v

21. Arilde is
(a) Warty out growth from micropyle, eg:- Castor
(b) Succulent growth from hilum covering the entire seed, eg:- Nutmeg
(c) Outgrowth originating from micropyl and covering the seeds, eg-Cardamom
(d) Enlarged funick, eg-Cokhicum seed

22. Cinnamon consists of the dried inner bark of the shoots of coppiced tree of Cinnamomum zeylanicum Nees. The typical microscopic charaters of the bark are
(a) Bisertate medullary rays, secretory cavities containing volatile oil and mucilage and few starch grains in cortical parenchyma and calcium oxalate in parenchymatous cells
(b) 2-5 byers of cork cells containing oil globules. Presence of schizogenous canal
(c) Medullary rays multisertate, the periderm portion cork has both to gentially and radially elongated celk, stone cells present and no phloem fibers
(d) Ex-faliated cork, non-lignified with 2-4 layers of phellogens 15-20 rows of phelloderm Prominent vascular tissue

23. An essential ingredient in the general preparation of plant tissue culture media is
(a) Auxin or Naphthaleneacetic acid
(b) Sucrose or Glucose
(c) Giberlin G1 or Gibberellin G_2
(d) Pyridine HC

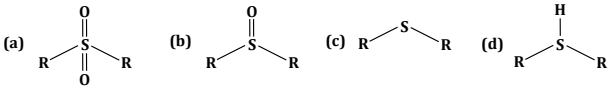
24. The Mefloquine, Proguanil and Primaquine can be effectively used in diseases produced by
(a) Mycoplasma (b) Dermatophytes
(c) Protozoa (d) Spirochetes

25. Identify the receptor which demonstrates the fastest onset of response, when stimulated
(a) Nuclear receptors (b) lonotropic receptors
(c) G-protein coupled receptors (d) Insulin receptors

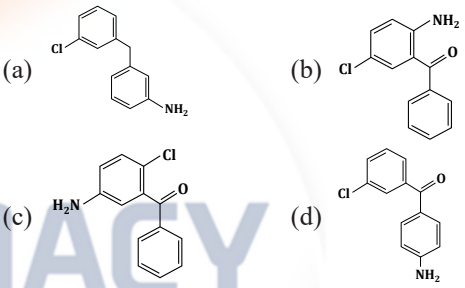
26. One of the following drugs is converted to the corresponding deoxy nucleotide, which shows cytotoxicity
(a) Dactinomycin (b) Lomustine
(c) Vincristine (d) 5-Fluorouracil

27. The compound 2-Methyl-3-p hytyl -1, 4-naphthoquinone and 2-methyl -3-all-trans farnesyl geranyl, 4-napthoquinone are commonly known as
(a) Vitamin D_1 and D_2 (b) Vitamin A_1 and A_2
(c) Vitamin K_1 and K_2 (d) Vitamin B_1 and B_2

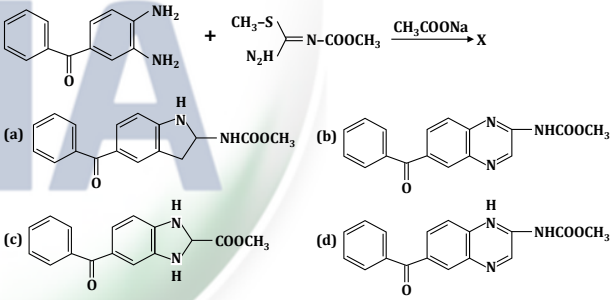
28. (Z)-5-Fluoro-2-methyl-1-{[p-(methyl-sulpinyl)phenyl] methylene)-1H indene-3-acetic acid, reaches peak blood levels within 2-4 hours and undergoes a complication reversible metabolism to become active. Active metabolite has the group



29. An intermediate for the synthesis of Benzodiazepine derivatives can be prepared by treating 4-chloroaniline with benzoyl chloride in the presence of zinc chloride as a catalyst. Identify the intermediate



30. Find the product X in the reaction



31. In the preparation of ointments, Macrogels are used as used
(a) Water soluble base (b) Hydrocarbon base
(c) Absorption base (d) Olagenous base

32. An antioxidant commonly used in the formulation of a non-aqueous parenteral preparation is
(a) Thiogycolic acid
(b) Ascorbic acid
(c) Sodium metabisulphite
(d) Butylated hydroxyl toluene

33. Phosphatidic acid and its derivatives from liposomes because
(a) In a fully hydrated condition, they are conical in shape
(b) In a fully hydrated condition, they are cylindrical in shape
(c) They contain only non-polar moieties in their structures
(d) Their saponification values are unusually low

34. With regard to the standards for sterile water for injection, I.P the 'residue on evaporation' limit is
(a) Higher than water for injection, I.P
(b) Lower than water for injection, I.P
(c) Same as that of the water for injection, I.P
(d) No such standard is prescribed in the monograph

35. The number of peaks given by the ^1H NMR spectrum of 2-methyl-1-pentene is
(a) 4 (b) 5 (c) 6 (d) 3

36. In HPLC, the analytical performance improves when
(a) Partick diameter is increased
(b) Partick diameter is reduced
(c) Coarse partick are paired with shorter columns
(d) Low temperature is used

37. Increase in the extent of conjugation of a double bonded system results in
(a) Hyperchromic shift (b) Hypochromic shift
(c) Hypsochromic shift (d) Bathochromic shift

(Q.38-Q.54) Multiple Selection Items

P.Q.R.S are the options. Two of these option are correct.

38. Alkabids derived from ornithine are
[P] Cocaine [Q] Cokhicine
[R] Hyosyamine [S] Emetine
(a) [Q], [S] (b) [P], [R] (c) [S], [R] (d) [P], [Q]

39. Aloe barbadensis has two of following characters
[P] The drug obtained is white in color and has a bitter taste
[Q] The drugs is opaque, yellowish brown to chocolate brown in color and breaks with a waxy fracture
[R] The drug has a pungent odour and is amorphous under the microscope
[S] Under in the microscope, acicular crystals are visible
(a) [P], [R] (b) [P], [S] (c) [Q], [S] (d) [Q], [R]

40. Tacrolimus is a macrolide antibiotic, which bears the following attributes
[P] Produced from strptomyces hygroscopicus and is chemically related to Cyclosporine
[Q] Binds with cytoplasmic peptidyl-propyl-isomerase and can be useful in liver and kidney transplant
[R] Produced from streptomyces tsukubaensis and is chemically, unrelated to Cyclosporine
[S] An inhibitor of pyrimidine synthesis, used in rheumatoid arthritis
(a) [P], [Q] (b) [P], [S] (c) [Q], [R] (d) [Q], [S]

41. Metformin acts by two mechanisms
[P] Increasing insulin secretion
[Q] Inhibiting a-glucosidase
[R] Decreasing hepatic glucose production
[S] Increasing insulin action in muscle and fat
(a) [P], [Q] (b) [R], [S]
(c) [P], [R] (d) [Q], [S]

42. Metabolic oxidation of carbon-nitrogen, carbon-oxygen and carbon-sulphur systems principally involves two basic types of bio-transformation processes
[P] Hydroxylation of the a-carbon atom attached directly to the heteroatom
[Q] Mixed function oxidase system also oxidizes carbon atom adjacent to carbonyl and imino functions
[R] Hydroxylation of the hetero-atom only
[S] Microsomal hydroxylation at allylic carbonatom
(a) [P], [R] (b) [P], [S] (c) [Q], [P] (b) [P], [S]

43. The silver salt Sulphadiaziane, SILVADENE, is an effective topical antimicrobial agent in burns because of its two important attributes
[P] Board spectrum of activity
[Q] Active against pseudomonas species
[R] The salt is only very slightly soluble and its does not penetrate the wall, instead it acts on the structur external cell structure:
[S] The salt is highly soluble and hence it is rapidly absorbed
(a) [P], [Q] (b) [P], [S] (c) [Q], [R] (d) [R], [S]

44. In the synthesis of Chorpheniramine, two important ingredients required are
[P] 4-chloro benzyl cyanide
[Q] 4- chloro pyridine
[R] 2-chloro benzyl cyanide
[S] 2- chloro pyridine
(a) [P], [Q] (b) [P], [S] (c) [Q], [R] (d) [R], [S]

45. Zeta potential
[P] Is the difference in potential between the surface of the tightly bound layer and the electroneutral region
[Q] Is the potential at the solid surface of the suspended particle
[R] Can be positive, zero negative
[S] Is the electro therodynamic potential
(a) [P], [R] (b) [P], [S] (c) [Q], [R] (d) [P], [Q]

46. Two of the official standards for uncoated tablets as per IP are
[P] Shape [Q] Friability
[R] Disintegration time [S] Uniformity of weight
(a) [P],[Q] (b) [P], [S] (c) [Q], [R] (d) [R], [S]

47. As per schedule 'O' of the Drugs and Cosmetics Rules 1945, the minimum Rider walker coefficients for Grade 1 and 3 black disinfectant fluids are
[P] 18 [Q] 10 [R] 5 [S] 14
(a) [P],[R] (b) [Q], [S] (c) [P], [S] (d) [R], [S]

48. The IR spectrum of an organic liquid can be taken by placing it between a pair of polished plates made of
[P] NaCI [Q] $FeSO_4$ [R] KBr [S] $AICI_3$
(a) [P], [Q] (b) [P], [S] (c) [R], [S] (d)[P], [R]

49. In gas choromatography, derivatisation is desirable to
[P] Improve the thermal stability of compounds
[Q] Enable interaction with carrier gas
[R] Introduce a detector oriented tag into the molecular
[S] Remove contaminants
(a) [P] ,[Q] (b) [Q], [R] (c) [P], [R] (d) [P], [S]

50. Neutral thinaliphatic amino acid found in proteins are
[P] Methionine **[Q]** Valine
[R] Cysteine **[S]** Leucine
(a) [P], [Q] (b) [P], [R] (c) [P] ,[S] (d) [R], [S]

51. Diazoxide a Benzothiazide derivative produces
[P] Vasoconstriction by activating ATP sensitive K+ channel
[Q] Vasodilatation by activating ATP sensitive K+ channel
[R] Inhibition of insulin secretion
[S] Stimulation of insulin secretion
(a) [P], [R] (b) [Q],[R] (c) [P], [S] (d) [Q], [S]

52. The principle of ELISA is based on these two observations
[P] Antibodies and antigens can attach to solid phase supports and still maintain their full immunological capabilities
[Q] Antibodies complex with enzymes allowing full separation of antigen molecules
[R] Antigens and antibodies can be bonded to enzymes and resulting complexes still fully functional both immunologically and enzymatically
[S] Enzymatic action is crucial for converting the antigens to render them suitable for binding to antibodies
(a) [P], [Q] (b) [P], [R] (c) [Q], [R] (d) [Q],[S]

53. Which of the following are likely to be good targets for designing antihypertensive drugs
[P] H2 histamine receptor
[Q] Proton pump
[R] Calcium channel protein
[S] α2- adrenergic receptor
(a) [P], [Q] (b) [R], [S] (c) [P], [R] (d) [Q], [S]

54. The characteristic of the sabin vaccine administered orally for prevention of polio cludes which
[P] It consists of live attenuated strains of three immunological types of the poliovirus
[Q] It is generally not used in infants below 9 months of age
[R] It contains serum antibodies that are active against specific strains of poliovirus
[S] It has the risk of occasionally reverting back to virulent strains, resulting in vaccine-associated paralytic poliomyelitis
(a) [P], [S] (b) [Q], [R] (c) [P], [R] (d) [P], [Q]

(Q.55-Q.70) Are Matching Exercises Match Group I With Group II And Identify The Correct Combination

55. Mucilages are plant products formed at different parts of the plant

Group I	Group II
Plant part from which it is found	Exampl
1. Cell wall of seed epidermis	[P] Fenugreek
2. Endodermis	[Q] Senna
3. Epidermis of leaf	[R] Squill
4. Special secretory cell	[S] Linseed

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

56.

Group I	Group II
Crude Drugs	Chemical natural of their chife constituents
1. Ergor	[P] Imidazole alkaloids
2. Jaborandi	[Q] Steroidal compounds
3. Kurchi	[R] Indole alkaloids
4. Pterocarpus	[S] Condensed tannis

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

57.

Group I	Group II
Common regents used in pharmacognosy	Uses
1. 5% aqueous chlor-zinc iodine	[P] Disintegration of sclerenchymatous tissues
2. Phloroghicinol and hydrochloric acid ethanol	[Q] Staining lignified wall pink or red
3. A mixture of equal parts of ether and ethanol	[R] Removal of fixed oils and fats
4. A mixture of equal parts of chromic acid and nitric acid	[S] Staining cellulose wall blue

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

58.

Group I	Group II
Reactions	Names
1. n -propyl m-tolyl ketone is converted to m-(n-butyl) toluene using NH_2 -NH_2 and a base at 200°C	[P] Perkin condensation
2. Phenol is treatedwith chloroform and aqueous sodium hydroxide by which, salicylakle hyde is formed	[Q] Wolfi Kishner reduction
3. Benzophenone and methylene triphenyle phospharane are treated and the product formed is 1,1 diphenyl ethane	[R] Wittigs reaction
4. Benzaldehyde is treated with acetic anhydride in the presence of sodium acetate, 3 phenyl propanoic acid is formed	[S] Reimer-Tiemann reaction

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

59.

Group I	Group II
Name of enzyme	Description
1. Sutilains	[P] Mixture of proteolytic enzyme obtaine from the pineapple plant used for so tissue inflammation and oedema
2. Urokinase	[Q] It is a tissue plasminogen activame produced by recombinant DNA Technology
3. Atteplase	[R] Obtained from tissue culture of huma kidneys and is a glycosylated seri protease consisting of two polypeptid chains connected by a single disulphid bond
4. Bromelains	[S] A proteolytic enzyme obtained from culture of Bacillus subtilis used to dissob 64 necrotic tissue in bruns, bed sores and ukerated wounds

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

60.

Group I	Group II
Physical form of substances	Rheological properties
1. Castor oil	[P] Plastic flow
2. Concentrated flocculated suspension	[Q] Pseudoplastic flow
3. Liquid dispersion of methyl cellulose	[R] Dilatant flow
4. Pastes of small de flocculated partical	[S] Newmian flow

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

61.

Group I	Group II
1. Crystal growth	[P] Griffin
2. pH scale	[Q] Sorensen
3. HLB scale	[R] DIVO theary
4. faterparticular force	[S] Ostwald ripening

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

62.

Group I	Group II
Method of portfication	Effect on water quality
1. Entrainment preventive distillation	[P] CFU value and endotoxin content usually increases
2. Simple distillation	[Q] Pyrogen free water
3. Reverse osmosis	[R] Endotoxins and pyrogensare not removed
4. Ion- exchange	[S] Small organic molecules (molwt, apprus less than 200) are not removed

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

63.

Group I	Group II
Drugs	Mechanism
1. Rifabutin	[P] Inhibition of viral DNA synthesis
2. Penciclovir	[Q] Inhibition of mycobacterial polymerese RNA polymerese
3. Imiquimod	[R] Inhibition of HIV protease
4. Amprenavir	[S] Immunomodulation

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

64.

Group I	Group II
Responses/Incidents	Bioactive substances
1. False transmitter	[P] Histamine
2. St. Antony's fire	[Q] Methyldopa
3. Tripke response	[R] Morphine
4. Straub phenomenon	[S] Ergot alkaloid

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

65.

Group I	Group II
Adverse effects	Drugs
1. Reye's syndrome	[P] Chloramphenicol
2. Hypertrichosis	[Q] Morphine
3. Grey baby syndrome	[R] Aspirin
4. Pinpoint pupil	[S] Minoxidil

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

66.

Group I	Group II
Technique used	Analytical method of evaluation
1. Polirography	[P] Potential-volume curve
2. Potentiometry	[Q] Current -potential curve
3. Conductometry	[R] Conductance-volume curve
4. Amperometry	[S] Current volume curve

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

67.

Group I	Group II
Type of Radiation	Wave length
1. Radio frequency	[P] >100 mm
2. UV	[Q] 200-380 nm
3. X-ray	[R] 10 pm- 10 am
4. Mid-IR	[S] 2.5-50 µm

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

68.

Group I	Group II
Spraying reagents used in Chromatographic methods	Type of substance methods (visualizing agent)
1. $SUSI_3$ in $CHCI_3$	[P] Carboxylic acid
2. Bromocresol green	[Q] Aldehyde or ketone
3. Aniline phthalate	[R] Steroid
4.2,4 dinitrophenyl hydrazine	[S] Sugar

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

69.

Group I	Group II
Antibiotics	Test organism for microbiological assay IP
1. Erythromycin	[P] Staphylococcus aureus
2. Duxycycline	[Q] Pseudomonas aeruginosa
3. Carbenicillin	[R] Saccharomyces cerevisiae
4. Amphotericin B	[S] Micrococcus luteus

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

70.

Group I	Group II
Hormone	Action
1. Vasopressin	[P] Modulates extensive vasodilatation
2. Oxytocin	[Q] Helper hormone to corticotropic releasing hormone
3. Bradykinin	[R] Stimulates synthesis of compones milk
4. Prolactin	[S] Responds to suckling reflex and estradiol

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

Statement for linked answer Question 71-75

Since ancient times, the coca kaves rich in cocaine, a pyschostimulant, have been a by the South Americans as a masticatory agent.

71. The alkaloid concentration in coca leaves vary from
(a) 3-4% (b) 0.7-1.5%
(c) 0.01-0.02% (d) 9-11%

72. Cocaine, the alkaloid derived from coca leaves acts by
(a) Increasing noradrenaline synthesis
(b) Inhibiting monoamine oxidase
(c) Inhibiting catechol-O-methyl transferase
(d) Inhibiting noradrenaline re-update

73. Chlorambucil IP is a cytotoxic agent derivative of
(a) Amino phenyl butyric acid
(b) Amino phenyl caproic acid
(c) Amino phenyl glycine
(d) Diamino diphenyl

74. Identification test prescribed in IP is for Chlorambucil 6.4g of the drug is extracted with 10 ml quantities of 2 M hydrochloric acid three times. To 10 ml quantity of extract,0.5 ml potassium mercuric iodide solution is added, which yields
(a) Yellow coloured precipitate
(b) Yellow coloured solution
(c) Buff coloured precipitate
(d) Red coloured precipitate

75. Chlorambucil is assayed as per IP by titrating a dilute acetone solution of the drug with
(a) 0.1 M sodium hydroxide
(b) 01 M hydrochloric acid
(c) 02 M pechloric acid
(d) 0.1 M silver nitrate

Statement for linked answer Question 76-77

Dried stigma of crocus sativus contains several constituents

76. One of the important constituents is
(a) Picrocrocin (b) Picroside 1
(c) Picrasmin (d) Gymnemic acid

77. **On hydrolysis, the gives a product which is responsible for the characteristics odour**
(a) Crocetin (b) Saffranal
(c) Quercetian (d) Crotonic acid

Statement for linked answer Question 78-79

A glycosaminoglycan is found in the granules of mast cells

78. **An anticoagulant glycosaminoglycan is**
(a) Warfarin (b) Heparin
(c) Vitamin K (d) Aspirin

79. **The anticoagulant selected above acts by**
(a) Lowering the affinity for free plasminogen
(b) Degrading fibrin and fibrinogen
(c) Binding to antithrombin III
(d) Antagonizing co factor function of vitamin K

Statement for linked answer Question 80-81

Prazosin, an antihypertensive drug, is prepared as follows: 2, 4-dihydroxy-6, 7-dimethoxy quinazoline is treated with $POCl_3/PCl_5$, followed by amidation. The product X is treated with a reagent Y to get Prazosin

80. **The product X is**
(a) 4-Amino-3-chloro-6, 7-dimethoxy quinazoline
(b) 2-Amino-4-chloro-6, 7 dimethoxy quinazoline
(c) 4-Amino-2-chloro-6, 7-dimethoxy quinazoline
(d) 4-Amino-6-chloro-2, 7-dimethoxy quinazoline

81. **The reagent Y is**
(a) 1-(2-Furayl) pyridine (b) 1 (2-Furoyl)-piperazine
(c)1-(2-Pyridyl) piperazine (d) 1-(2-Furoyl) pyrimidine

Statement for linked answer Question 82-83

The powder of a viscosity builder is dispersed with high shear in 1/5 to 1/3 of the required amount of water preheated to 80°C to 90°C. Once the powder is finely dispersed, the volum is made up with ice cold water or ice. Moderate stirring causes prompt dissolution

82. **The powder is**
(a) Bentonite (b) Sodium carboxymethyl cellulose
(c) Veegum (d) Methyl cellulose

83. **For obtaining maximum clarity, hydration and viscosity the above solution should cooled for about an hour to**
(a) 0°C to 10°C (b) 25°C
(c) 50°C (d) 35°C

Statement for linked answer Question 84-85

Ɛ and $A_1^{1\%}$cm can be interconverted using a formula, from which its molar absorptivity absorbance can be calulated

84. **The formula is**
(a) Ɛ and $A_{1\ cm}^{1\%}$ x mol.wt/1000
(b) Ɛ and $A_{1\ cm}^{1\%}$ x mol.wt/10
(c) Ɛ and $A_{1\ cm}^{1\%}$ x mol.wt/10000
(d) Ɛ and $A_{1\ cm}^{1\%}$ x mol.wt/100

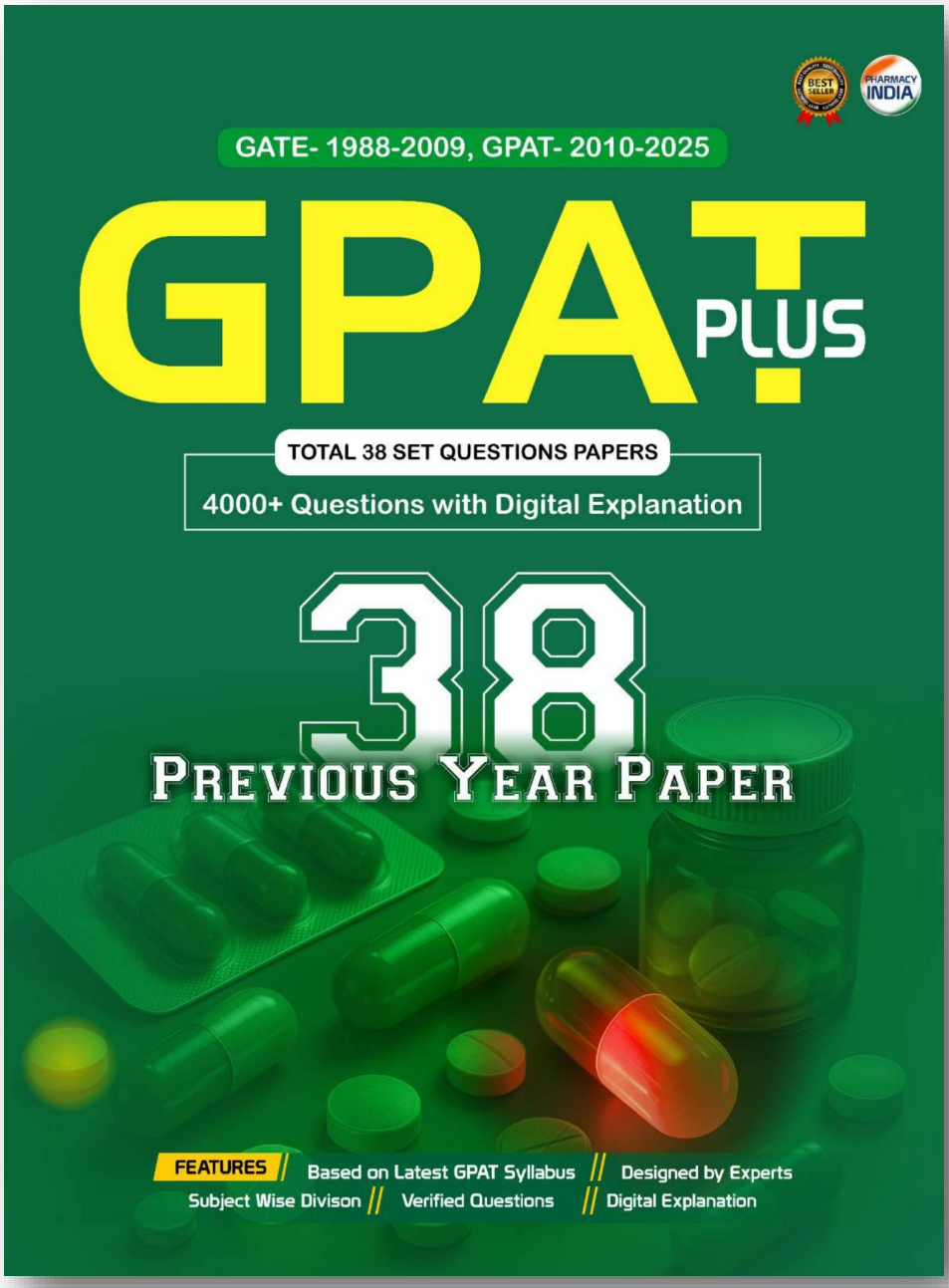
85. **A compound has a molecular weight of 297 an equivalent weight of 148.5 and an $A_{1\ cm}^{1\%}$ of 742 at 309 nm. Its molar absorptivity is**
(a) 220.37 (b) 1101 87
(c) 110.18 (d) 22037.5

Answer Key

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

COD AVAILABLE ON

Flipkart amazon Meesho



Contact for any Query - 6395596959

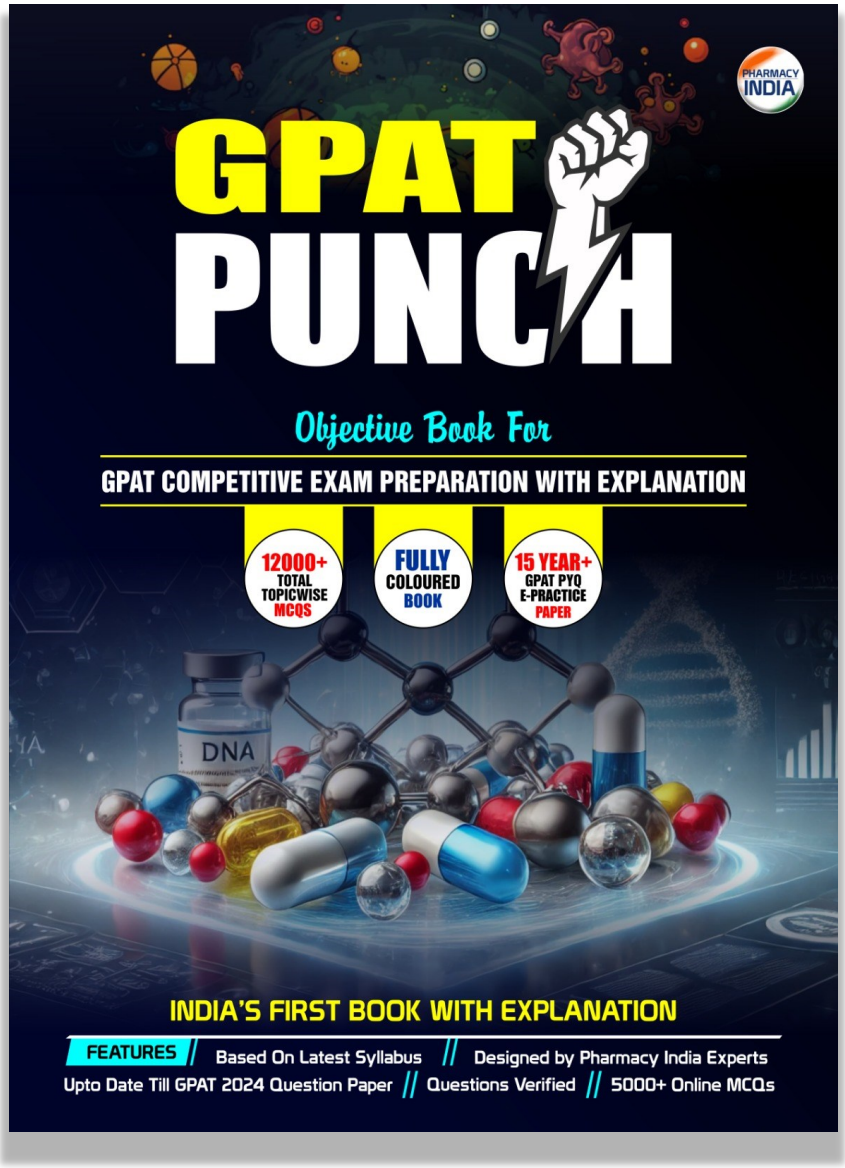
GET IT ON Google Play

PHARMACY INDIA

www.pharmacyindia.co.in

Download PHARMACY INDIA App from Play Store

BEST BOOK FOR GPAT PREPATRATION



: Features :

- ⇒ 12,000+ Total Topic-wise MCQs
- ⇒ 15 Year+ GPAT PYQs E- Practice Papers
- ⇒ Full Digital Explanation
- ⇒ Based on Latest Syllabus
- ⇒ Fully Colored Book
- ⇒ India's First Book With Explanation

Download

COD AVAILABLE

amazon

Flipkart

Contact for Sample Pdf - 9258534641

PHARMACY INDIA

Join

WhatsApp & Telegram Channel

SCAN ME

SCAN ME

PHARMACY INDIA

www.pharmacyindia.co.in

Tap and Download PHARMACY INDIA App

Scan and Download

SCAN ME

PHARMACY INDIA

www.pharmacyindia.co.in