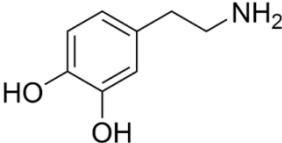
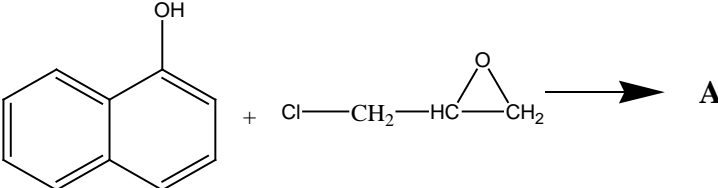
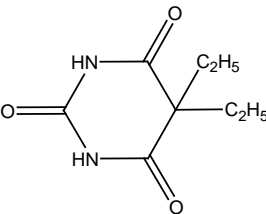
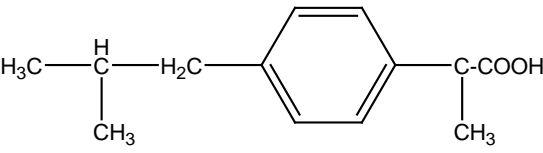


PHARMACEUTICAL CHEMISTRY

Q.No.	Question																		
1.	In UV spectroscopy, K-band occur due to A $n \rightarrow \pi^*$ transition B $\pi \rightarrow \pi^*$ transition C $\sigma \rightarrow \sigma^*$ transition D All of the above																		
2.	In NMR spectroscopy, transition of nucleus from lower energy state to higher energy state is caused by A X-Rays B β -Rays C Radiowaves D γ -Rays																		
3.	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Method Adopted</td> <td style="width: 50%;">Physical state of the sample used</td> </tr> <tr> <td>(P) Gas Chromatography</td> <td>(1) Solution</td> </tr> <tr> <td>(Q) Infra-red</td> <td>(2) Crystal</td> </tr> <tr> <td>(R) HPLC</td> <td>(3) Solid, Liquid or Gas</td> </tr> <tr> <td>(S) X-Ray Diffraction</td> <td>(4) Liquid or Gas</td> </tr> <tr> <td>A P-1, Q-4, R-3, S-2</td> <td></td> </tr> <tr> <td>B P-2, Q-3, R-1, S-4</td> <td></td> </tr> <tr> <td>C P-3, Q-4, R-2, S-1</td> <td></td> </tr> <tr> <td>D P-4, Q-3, R-1, S-2</td> <td></td> </tr> </table>	Method Adopted	Physical state of the sample used	(P) Gas Chromatography	(1) Solution	(Q) Infra-red	(2) Crystal	(R) HPLC	(3) Solid, Liquid or Gas	(S) X-Ray Diffraction	(4) Liquid or Gas	A P-1, Q-4, R-3, S-2		B P-2, Q-3, R-1, S-4		C P-3, Q-4, R-2, S-1		D P-4, Q-3, R-1, S-2	
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4.	Which of the following indicators is used in complexometric titrations? A Crystal Violet B Murexide C Eosin D Methyl Orange																		
5.	Purity of water can be assessed by instrumentally determining one of the following properties A Viscosity B pH C Conductivity D Refractivity																		
6.	The antiarrhythmic drug quinidine is A (+) stereoisomer of quinine B (-) stereoisomer of quinine C Racemic mixture of quinine D None of the above																		
7.	Oxidative phosphorylation involves A Electron transport system B Substrate level phosphorylation C Reaction catalyzed by succinic thiokinase in TCA cycle D None of the above																		
8.	A β -lactamase inhibitor which contains an 1-oxopenam structure is A Tazobactam sodium B Clavulanate potassium C Sulbactam sodium D Thienamycin																		
9.	In IR spectrum, the functional group region is from: A 4000 to 900 cm^{-1} B 4000 to 1400 cm^{-1} C 1400 to 900 cm^{-1} D 40000 to 660 cm^{-1}																		

10.	Quaternary structure in protein molecule refers to A Arrangement of multiple domains in a single polypeptide chain B Specific arrangement of multiple subunits in multi-subunit proteins C Formation of molten globules D protein folding in single subunit proteins
11.	Reaction of an α -halo ester with an aldehyde or ketone in the presence of a base like NaNH_2 gives α,β -epoxy carboxylic ester. This reaction is referred as A Willgerodt rearrangement B Bamford steven reaction C Darzen's glycidic synthesis D Bayer villiger rearrangement
12.	Identify the false statement about benzodiazepines from the following: A Cause reduction of anxiety B Cause convulsions C Produce muscle relaxation and loss of motor co-ordination D Are useful in insomnia
13.	Identify the molecule which will not exhibit Dipole moment A Carbon dioxide B Carbon monoxide C Chloroform D Ammonia
14.	Verapamil is A Alkyl amine derivative B Alkylimino derivative C Aralkylamine derivative D None of the above
15.	The IUPAC name of Warfarin is A 4-hydroxy-2-(3-oxo-1-phenylbutyl)coumarin B 4-hydroxy-3-(3-oxo-1-phenylbutyl)coumarin C 1-hydroxy-2-(3-oxo-1-phenylbutyl)coumarin D 4-hydroxy-1-(3-oxo-1-phenylbutyl)coumarin
16.	Cardiac glycosides consists of A A furon ring at 17 carbon B A lactone ring at 17 carbon C A pyridine ring at 17 carbon D None
17.	The basic ring found in steroids is A Phenathrene ring B Cyclo-pentano-perhydro-phenanthrene ring C Cyclo-butano-perhydro-phenanthrene ring D Cyclo-pentano-perhydro-anthracene ring
18.	The residual solvents that must be avoided in medicines belongs to A Class I B Class II C Class III D Class 0
19.	First edition of the Indian Pharmacopoeia (I.P) was published under the chairmanship of A Dr. B. N. Ghosh B Dr. M.L. Shroff C Dr. Gurudev D Dr. Rao
20.	In limit test of sulphate beading effect is shown due to A Potassium sulphate B Ethanol C Water D Acid

21.	The superconducting wire of magnet of NMR is composed of A Niobium/ tin B. Magnesium/tin C. Zinc/tin D. Molybdenum/tin
22.	Which predicts the value of 1 tesla? A 10^2 gauss B 10^3 gauss C 10^4 gauss D None of the above
23.	The electric potential applied in paper electrophoresis is A 1 volts/cm B 8 volts/cm C 50 volts/cm D 1000 volts/cm
24.	The phenomena, when one fundamental vibration combines with one overtone vibration is called A Symmetrical stretch B Asymmetrical stretch C Rocking D Fermi resonance
25.	The Swelling agent in ion exchange chromatography A Polystyrene B Polystyrene and divinyl benzene C Divinyl benzene D None of the above
26.	The stationary phase used in Reverse phase HPLC A Silica gel B Alumina C Octa decyl silane D All the above
27.	Death of cyanide poisoning is due to A Cytochrome P450 B Cytochrome c oxidase C Cytochrome b D cytochrome c reductase
28.	2-bis (2 chloroethyl) amino per hydro 1,3,2-oxazaphosphorinane is an A anti-metabolite B alkylating agent C anti-tubercular agent D anti-arrhythmic agent
29.	In amperometric titrations one of the following is kept constant A Current B Resistance C Voltage applied D Conductance
30.	The activity of one of the following drug is dependent on Phenyl-N-alkyl piperidine moiety A Meperidine B Imipramine C Diazepam D Chlorpromazine
31.	A bolometer consists of A Two metals welded together B A thin blackened platinum strip in an evacuated vessel C Deuterated triglycine sulphate D Tungsten wire

32.	Identify the following structure  A Adrenaline B Noradrenaline C Dopamine D None of these
33.	Identify A in the reaction sequence:  A Propranolol B Atenolol C Betaxolol D Esmolol
34.	Identify the drug:  A Diazepam B Barbitol C Phenobarbital D Phenytoin
35.	Predict the structure of drug:  A Mefenamic acid B Diclofenac C Ketorolac D Ibuprofen
36.	Dissociative anesthesia is caused by: A Halothane B Ketamine C Enflurane D Thiopental sodium
37.	Chemical shift is expressed in one of the following units A cm^{-1} B amperes C parts per million D mm/ml

38.	In Gas Chromatography, derivatization is done to A Convert a less polar compound to a more polar compound B Make the compound non-volatile C Convert a polar compound to a less polar compound D Liquify a solid
39.	IR spectra appears as dips in the curve rather than maxima as in UV-Vis 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
40.	The structural feature common for propranolol, atenolol, pindolol, metoprolol in the side chain is A Isopropylamino propan-2-ol B Dimethylamino propan-2-ol C Diethylamino propan-2-ol D Dibutylamino propan-2-ol
41.	o, m, p- isomers can be differentiated on the basis of A Chemical shift B Coupling constant C Extinction coefficient D Dipole moment
42.	In mammals, the major fat in adipose tissue is A Triglyceride B Cholesterol C Sphingophospholipids D Phospholipids
43.	Which of the following is a phase II drug metabolism reaction associated with genetic polymorphism A Glucuronidation B Acetylation C Reduction D Glutathione conjugation
44.	Match the following enzymes/proteins with specific functions in DNA replication (1) Helicases (P) Processive unwinding of DNA (2) DNA Primer (Q) Seals the single strand (3) DNA ligases (R) Relieves torsional strain (4) Topoisomerases (S) Initiates synthesis of RNA Primers A 1-P, 2-Q, 3-R, 4-S B 1-P, 2-S, 3-Q, 4-R C 1-S, 2-Q, 3-P, 4-R D 1-P, 2-Q, 3-R, 4-S
45.	Which one of the following techniques is used to determine glass transition temperature A X-ray diffractometry B Raman spectroscopy C Differential scanning calorimetry D NMR
46.	The dihedral angle between C-H bond viewed along the C-C bond axis in a staggered conformation of ethane is A 60° B 120° C 180° D 240°
47.	Naloxone is a morphine A Agonist B Antagonist C Mixed agonist or antagonist D All of the above

48.	Which of the functional groups is most susceptible to hydrolysis? A R-CO-R B R-COOR C R-O-R D R-COOH
49.	A catalyst in the finely divided state is more efficient because in this state A More active centres are formed B Less surface area is available C More energy is stored in the catalyst D All of the above
50.	Removal of single electron from a molecule results in the formation of A Fragment ion B Metastable ion C Molecular ion D Rearrangement ion

ANSWER KEY

Q No.	Option	Q No.	Option
1	B	26	C
2	C	27	B
3	D	28	B
4	B	29	C
5	C	30	A
6	A	31	B
7	A	32	C
8	B	33	A
9	B	34	B
10	B	35	D
11	C	36	B
12	B	37	C
13	A	38	C
14	C	39	D
15	B	40	A
16	B	41	B
17	B	42	A
18	A	43	B
19	A	44	B
20	A	45	C
21	A	46	A
22	C	47	B
23	B	48	B
24	D	49	A
25	A	50	C

THE CANDIDATES ARE REQUESTED TO SEND THEIR
OBJECTIONS IN THE ABOVE KEY (with proper justification) LATEST
BY 24.12.2022 FIVE P.M AT key.object@aktu.ac.in

PHARMACEUTICS MCQ QUESTION PAPER DEC-2022

1. Gelatine Nanospheres were prepared by pH-Induced Aggregation method cross-linking agent used is
 - A. Glutaraldehyde
 - B. Formaldehyde
 - C. Chloroform
 - D. All the above

2. Molecular weight Determination of Nanoparticles by
 - A. Gel permeation chromatography
 - B. Column chromatography
 - C. Paper chromatography
 - D. All the above

3. Liposomes consists of a bilayers of
 - A. Hydrophillic Molecule
 - B. Hydriphobic Molecule
 - C. Both A and B
 - D. None

4. Who Invented Gene Therapy?
 - A. William French Anderson
 - B. Charles Darwin
 - C. Gregor Mendel
 - D. Michael Blaese

5. Niosomes are formulated by using Surface active agents.
 - A. Cationic
 - B. Non-Ionic
 - C. Anionic
 - D. Zwitter- ionic

6. Which part of the human body are bone marrow cells removed from to perform *ex vivo* SCID gene therapy?
- A. Lung
 - B. Skull
 - C. Hip bone
 - D. Spinal cord
7. The Mechanism by which the peptides are absorbed in nasal cavity.-
- A. Paracellular (Intercellular)
 - B. Transcytotic
 - C. Trans cellular
 - D. All of the above
8. Commonly used coating materials are in Aquasomes
- A. Cellobiose,
 - B. Citrate or Sucrose,
 - C. Trihalose
 - D. All of the above
9. Categorize the following drug when it is loaded as liposome for the treatment of systemic fungal infection caused by organ transplantation
- A. Cytosine arabinoside
 - B. Amphotericin B
 - C. Doxorubicin
 - D. Acyclovir
10. Normal pH of the nasal secretion of adults is.....
- A. 7.5 to 8.5
 - B. 5.5 to 6.5
 - C. 7 to 8
 - D. 8 to 9

11. Which of the following drug candidates does not suit for Nasopulmonary drug delivery systems
- A. Drug showing extensive first pass metabolism
 - B. Drug with irritant action
 - C. Drug with poor GIT stability
 - D. Drugs are not to be targeted for CNS by avoiding Blood brain barriers.
12. Which of the method is useful especially treatment of cancer-
- A. Ex-vivo therapy
 - B. In-vivo therapy
 - C. Antisense therapy
 - D. All the above
13. Approaches For Tumour Targeting
- A. Active Targeting
 - B. Triggered Drug Delivery
 - C. Both A and B
 - D. None of the above
14. The blood-brain barrier were first observed in the late 19th century by
- A. Richard Feynman,
 - B. Norio Taniguchi,
 - C. Eric Drexler,
 - D. Paul Ehrlich
15. What is First Approaches Of Drug Targeting
- A) Prodrug Approach
 - B) Magic Bullet Approach
 - C) Magic Gun Approach
 - D) Missile Approach

16. Monoclonal Antibodies are used
- A. Radioimmuno assay
 - B. Enzyme-linked immunosorbent assays(ELISA)
 - C. Protein Purification
 - D. All the above
17. Characterization of Microspheres
- A. Scanning electron microscopy (SEM).
 - B. Electron spectroscopy for chemical analysis (ESCA).
 - C. Both A and B
 - D. None of the Above
18. Microspheres prepared by
- A. Double emulsion technique
 - B. Solvent evaporation
 - C. Phase separation coacervation technique
 - D. Above all
19. The absorbed drug from the nasal cavity must pass through the mucus layer
- A. Transcellular Transport
 - B. Para cellular Transport
 - C. Both A and B
 - D. None of the above
20. Solubilizer used in formulation of Nasal drug delivery system
- A. Labrasol,
 - B. Transcutol
 - C. Alcohol
 - D. All

21. From the diffusion-controlled delivery system Flux of a drug (J) across a membrane in the direction of decreasing concentration described by
- A. Fick's law
 - B. Noyes-Whitney equation
 - C. Martin's law
 - D. Hansch correlation
22. Risk of sudden and total drug release, or "dose dumping" is a disadvantage of?
- A. Targeted release
 - B. Modified release
 - C. Extended-release dosage forms
 - D. Delayed-release
23. Which of the following statements is correct
- A. In case of dissolution-controlled matrix penetration of the medium is controlled by porosity of the tablet matrix
 - B. In case of dissolution-controlled matrix penetration of the medium is controlled by presence of hydrophilic material in the tablet matrix
 - C. In case of dissolution-controlled matrix penetration of the medium is controlled by particle surface
 - D. All of the above
24. In below mentioned name, which one is not example of biodegradable polymer
- A. Polyglycolic acid (PGA) and Polyhydroxy butyrate (PHB),
 - B. Polyhydroxybutyrate-co-beta hydroxy valerate (PHBV), and Polycaprolactone (PCL),
 - C. Polystyrene (PS) and Polyethylene (PE)
 - D. Chitosan and alginate
25. Diffusion-controlled modified release (MR) systems consist of:
- A. Hydrophobic Matrix systems
 - B. Hydrophilic Matrix systems
 - C. Hydrophobic Reservoir systems
 - D. Both A & C

26. Pharmacokinetics is:
- A. The study of absorption, distribution, metabolism and excretion of drugs
 - B. The study of biological and therapeutic effects of drugs
 - C. The study of methods of new drug development
 - D. The study of mechanisms of drug action
27. Release kinetics from dissolution-controlled system is governed by:
- A. Fick's law of diffusion
 - B. Noyes Whitney Equation
 - C. Zero order
 - D. First order
28. Drugs with half life of to are good candidates for modified dosage form.
- A. Between 2 to 8 hours
 - B. Between 12 to 20 hours
 - C. Between 1 to 2 hours
 - D. Between 20 to 28 hours
29. The surfactants which contains both cationic and anionic centers attached to the same molecule is called as ----- surfactant.
- A. Anionic
 - B. Cationic
 - C. Amphoteric
 - D. Non-ionic
30. The introduction of 3D printing into the pharmaceutical technology particularly aims at the development of
- A. Patient-centered dosage forms based on structure design
 - B. Modified drug release
 - C. Sustain release
 - D. Target drug delivery system

31. Non-swellable water insoluble polymer
- A. Ethyl cellulose
 - B. HPMC
 - C. Carbopol
 - D. Polycarbophil
32. Ocular inserts have following feature:
- A. blurred vision
 - B. low bioavailability
 - C. sticking of eyelids
 - D. Increased retention
33. The formula for calculating loading dose in sustained release dosage forms is
- A. $C_{ss}V_d / F$
 - B. $C_{ss}K_e T / F$
 - C. $C_{ss}V_d K_e / F$
 - D. $C_{ss}V_d K_e / T F$
34. Which polymers occur naturally?
- A. Starch and Nylon
 - B. Starch and Cellulose
 - C. Proteins and Nylon
 - D. Proteins and PVC
35. Tear fluid contains an enzyme it is anti-bacterial enzyme. Which prevents the attack of any microbe on the eye.
- A. Lipases.
 - B. Amylase.
 - C. Maltase.
 - D. Lysozyme

36. Which of the following is a non- erodible insert?
- A. Ocusert
 - B. Collagen shield
 - C. NODS
 - D. SODI
37. The polymer used in “Lacriset”
- A. Hydroxy ethyl cellulose
 - B. Hydroxy Methyl cellulose
 - C. Methyl cellulose
 - D. Hydroxy propyl cellulose
38. Which of the following pharmaceutical excipients is able to prolong the retention time of ocular dosage forms on the surface of the eye?
- A. Poly-(methyl-methacrylate) copolymer
 - B. Isopropyl alcohol
 - C. Tween 20
 - D. Polyvinyl alcohol
39. Normal volume of tears is
- A. 9 micro liter
 - B. 7 micro liter
 - C. 6 micro liter
 - D. 10 micro liter
40. The intraocular pressure of the eye is measured with a -----
- A. Tonometer.
 - B. Tensiometer
 - C. Hydrometer
 - D. Pycnometer

41. Which of the following Inhaler as Greater efficiency.
- A. Dry powder Inhaler
 - B. Pressurized Metered dose inhaler
 - C. Nebulizer
 - D. A and C
42. Metered dose inhaler (MDI) has known drawbacks.
- A. Lesser dose accuracy
 - B. Can not deliver higher doses
 - C. Only single-dose dispensers are available
 - D. Only useful for potent drug
43. How much time does an intravenously administered drug take to complete a complete circulation?
- A. 5-8 min
 - B. 7-10 min
 - C. 1-3 min
 - D. 1 min
44. In the equation $\log C = \log C_0 - Kt/2.303$, what does C_0 stand for _____
- A. Plasma drug concentration after 60 min of i.v. injection
 - B. Plasma drug concentration after 15 min of i.v. injection
 - C. Plasma drug concentration after 30 min of i.v. injection
 - D. Plasma drug concentration immediately after i.v. injection.
45. What is meant by elimination half-life?
- A. Time take for half of the amount of drug to get completely eliminated from only the organs.
 - B. Time take for half of the amount of drug to get completely eliminated from only blood.
 - C. Time take for half of the amount of drug to get completely eliminated from only plasma.
 - D. Time take for half of the amount of drug to get completely eliminated from the body as well as plasma.

46. The i.v. bolus dosage is 500mg and the plasma drug concentration is 0.8 mg/ml. What should be the volume of distribution?
- A. 625 mg/ml
 - B. 625 l
 - C. 625 ml
 - D. 0.0016 mg/ml
47. To have a plasma distribution value of 900 ml and plasma drug concentration to be 1.2 mg/ml what should be the amount of drug that should be given to the patient?
- A. 1080 ml
 - B. 1080 g
 - C. 1080 mg
 - D. 1g/ml
48. Which organs comprise the central compartment in a two compartment model?
- A. Muscles
 - B. Skin
 - C. Adipose
 - D. Liver
49. A girl with age 21 has height 240cm, weight 55kg, serum creatinine of 0.8mg will have _____ creatinine clearance.
- A. 80 ml/min
 - B. 90 ml/min
 - C. 96.25 ml/min
 - D. 85 ml/min
50. Which pharmacokinetic model is drawn on the basis of anatomic and physiologic data?
- A. Compartment model
 - B. Catenary model
 - C. Physiologic model
 - D. Mammillary model

ANSWER KEYS PHARMACEUTICS MCQ QUESTION PAPER

Q No.	Correct Option	Q No.	Correct Option
1	A	26	A
2	A	27	B
3	C	28	A
4	A	29	C
5	B	30	A
6	C	31	A
7	A	32	D
8	D	33	A
9	B	34	B
10	B	35	D
11	B	36	A
12	C	37	D
13	C	38	D
14	D	39	B
15	B	40	A
16	D	41	C
17	C	42	B
18	D	43	C
19	C	44	D
20	D	45	D
21	A	46	C
22	C	47	C
23	D	48	D
24	C	49	C
25	D	50	C

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BY 24.12.2022 FIVE P.M AT key.object@aktu.ac.in

Objective Questions of Pharmacognosy

1. Cassia obovate, the allied species of senna is commonly known as
 - a. Bonbay Senna
 - b. Mecca Senna
 - c. Palthe Senna
 - d. Dog Senna
2. Jamestown weed is also known as
 - a. Datura
 - b. Hyoscymus
 - c. Belladona
 - d. Vinca
3. _____ may serve as chemotaxonomic marker for Papaveraceae family.
 - a. Ferulic acid
 - b. Meconic acid
 - c. Tropic acid
 - d. Quinic acid
4. Biosynthetic precursor of Morphine is
 - a. Tryptophan
 - b. Phynylalanine
 - c. Tyrosine
 - d. Lysine
5. Tropine is biosynthesised from
 - a. Alanine
 - b. Tyrosine
 - c. Methionine
 - d. Ornithine
6. Modified Bortragers test is required to detect
 - a. Aloe
 - b. Cascara
 - c. Senna
 - d. Rhubarb

7. Which one of these is not a components of Xylem
- Tracheids
 - Vessels
 - Rays
 - Sieve Tubes
8. Which of the following physico-chemical characteristic is correct for mucilage
- Foaming
 - Specific Gravity
 - Viscosity
 - Refractive Index
9. Aleurone grains are storage of
- Starch
 - Protein
 - Fats
 - Monosaccharide Sugars
10. Rosettes type calcium oxalate crystals is characteristic of
- Senna
 - Liquorice
 - Rhubarb
 - Cinnamon
11. Haemolytic test is generally used for
- Alkaloids
 - Terpenoids
 - Tannins
 - Saponins
12. Which one of these is not a outcome of Shikimic acid pathway
- Alanine
 - Phynylalanine
 - Tyrosine
 - Tryptophan

13. In plant tissue culture, shoot development can be initiated by which ratio of plant growth hormone
- Auxin:cytokinin (1:4)
 - Auxin:cytokinin (4:1)
 - Auxin:cytokinin (100:1)
 - Auxin:cytokinin (1:100)
14. Bromelain used in inflammation is obtained from
- Pineapple
 - Apple
 - Banana
 - Pomegranate
15. The pungency of capsicum is destroyed by
- Reducing agent
 - EDTA
 - Oxidizing agent
 - Ferric chloride
16. The initial bitter taste of liquorice is due to the presence of
- Glycyrrhizin
 - Glycyramarin
 - Liquiritin
 - Isoliquiritin
17. Perisperm of cardamom contain
- Acicular Crystal
 - Prismatic Crystal
 - Volatile Oil
 - Polygonal Tubular Cell
18. Acacia gum admixed with tragacanth can be detected by TLC of the hydrolysed sample, the presence of indicates adulteration.
- Rhamnose
 - Arabinose
 - Glucose
 - Maltose

19. *Mentha piperita* is hybrid species from the two parents
- M. cardiaca* and *M. spicata*
 - M. spicata* and *M. aquatica*
 - M. aquatica* and *M. arvensis*
 - M. arvensis* and *M. cardiaca*
20. Which one of these is not a constituent of *Digitalis purpurea*
- Digitoxigenin
 - Gitoxigenin
 - Digoxigenin
 - Gitaloxigenin
21. In general, this is not a source of natural volatile oil
- Calendula*
 - Chamomile
 - Geranium
 - Beetroot
22. ICH is a non-profit organization started in
- 1990
 - 1975
 - 1982
 - 1948
23. Simultaneous administration of Ginseng and Caffeine can cause serious problems because both are_____
- Diuretics
 - CNS Stimulant
 - Antioxidants
 - CNS depressant
24. For stability studies, accelerated testing is done by
- Storing for longer duration to allow significant degradation under specified storage
 - Subjecting to several conditions including high temperature, humidity, light etc. to determine shelf life.
 - Moderately increasing rate of degradation for a drug intended to be stored long term at 25 deg. C
 - High temperature and humidity to check their effects on drug.

25. What is the other name of *Hypericum perforatum*?
- St. John,s Wort
 - Maiden Hair tree
 - Kava
 - None
26. Which pair belongs to same morphological class
- Atropa & Aconite
 - Ashwagandha and Datura
 - Rauwolfia and Catharanthus
 - Rauwolfia & Ashwagandha
27. Which one of these is a demulcent?
- Codiene
 - Ephidrine
 - Honey
 - Ocimum
28. Unites States, Dietary Supplement Health and Education Act, which greatly influenced the market growth of herbal formulations, came in to effect in year
- 1990
 - 1982
 - 1992
 - 2000
29. *Lactobacillus acidiphylus* is an example of
- Nutraceutical Enzyme
 - Prebiotic
 - Fortified Nutraceutical
 - Probiotic
30. On crushing garlic, the enzyme allinase reacts and convert allin to _____, which has strong odour and therapeutic activity.
- Allicin
 - Allin Sulphate
 - Allicinin
 - Allicinic acid

31. Liquorice can be useful in case of
- Diarrhoea
 - Ulcer
 - Constipation
 - Vomiting
32. Monellin, which is 1500-2000 times more sweeter than sugar, does not match this property
- Slow onset of sweetness
 - Sweetness is pH dependent
 - Unstable at high temperature
 - Water insoluble
33. The essential fatty acids include
- Stearic acid and oleic acid
 - Palmitic acid and linolenic acid
 - Linoleic acid and linolenic acid
 - Oleic acid and linoleic acid
34. Lactose as excipient is generally used as
- Binder
 - Diluent
 - Disintegrant
 - Glidant
35. Herbal Pharmacopoeia is a publication of
- Indian Drug Manufacturers Association
 - Indian Pharmacopoeial Commission
 - Ministry of AYUSH
 - CSIR
36. The famous ayurvedic formulation 'Chwavanprash' is a form of
- Pisti
 - Dravya
 - Avleha
 - Lepa

37. Menthol is a
- Monoterpene
 - Diterpene
 - Triterpene
 - Sesquiterpene
38. Ayurveda is based on three fundamental principles:
- Panch mahabhuta, Tridosh theory, Sapta-dhatu theory
 - Panch mahabhuta, Tridosh theory, ashtam-dhatu theory
 - Panchdosh theory, Sapta-dhatu theory, astha mahabhuta
 - All of the mentioned choices
39. The nutraceutical given during pregnancy to prevent birth defects:
- Calcium
 - Iron
 - Folic Acid
 - Multivitamins
40. This drug can cause multiple drug interactions due to induction of the cytochrome P450 enzymes CYP3A4 & CYP1A2
- Ginko
 - Hypercium
 - Garlic
 - Ginseng
41. Test of 'Total solid content' is to be performed for
- Syrups
 - Tablets
 - Ointments
 - Phytosomes
42. Under 'Plant variety protection act 1970', the farmer gets _____ of protection rights for tees and vines.
- 10
 - 15
 - 18
 - 20

43. Which one is not correct
- Drug and Cosmetics act – 1940
 - Central Council of Homeopathy Act – 1973
 - Central Council of Indian Medicine Act – 1974
 - Medicinal and Toiletries Preparation Act – 1995
44. Which section consists of ASU drugs in D&C act
- Section 16
 - Section 33
 - Section 12
 - Section 21
45. Which schedule governs GMP of ASU drugs
- Schedule B
 - Schedule S
 - Schedule T
 - Schedule V
46. In general, which one of these is not a label for raw material in herbal drug industry
- Under test
 - Approved
 - Quarantine
 - Rejected
47. In determination of bitterness value, the reference used is
- Quinine Sulphate
 - Quinine hydrochloride
 - Quinine Nitrate
 - Quinine acetate
48. Which one of these adsorbents are not used in TLC
- Cellulose
 - Kieselguhr
 - Silica gel
 - Bentonite

49. In case of product recall, the following points needs to be considered except
- a. Standard operating procedure for recall
 - b. Segregated area for storage
 - c. Security of storage area
 - d. Non-disclosure to licensing authority
50. The coordination and facilitation of various various pharmacovigilance center is done by WHO & _____.
- a. Uppsala monitoring center
 - b. Sweden monitoring center
 - c. Geneva monitoring center
 - d. Switzerland monitoring center

THE CANDIDATES ARE REQUESTED TO SEND THEIR
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BY 24.12.2022 FIVE P.M AT key.object@aktu.ac.in

Answer key (Pharmacognosy)

Q. Number	Answer Key	Q. Number	Answer Key
1	d	26	d
2	a	27	c
3	b	28	c
4	c	29	d
5	d	30	a
6	a	31	b
7	d	32	d
8	c	33	c
9	b	34	b
10	c	35	a
11	d	36	c
12	a	37	a
13	b	38	a
14	a	39	c
15	c	40	b
16	b	41	a
17	a	42	c
18	a	43	c
19	b	44	b
20	c	45	c
21	d	46	c
22	a	47	b
23	b	48	d
24	b	49	d
25	a	50	a

PHARMACOLOGY MCQ QUESTION PAPER DEC-2022

1. Which of the following is a phase II drug metabolizing reaction?
 - a) Acetylation
 - b) Hydrolysis
 - c) Reduction
 - d) Oxidation
2. Which of the following is not example of physiological antagonism?
 - a) Histamine and Adrenaline
 - b) Hydrochlorothiazide and Triamterene
 - c) Acetylcholine and Atropine
 - d) Inulin and Glucagon
3. The route of administration does not have absorption phase.
 - a) Oral
 - b) Intraperitoneal
 - c) Subcutaneous
 - d) Intravenous
4. The CYP isoenzyme is expressed in both the intestinal epithelium and the kidney.
 - a) CYP2D6
 - b) CYP3A4
 - c) CYP2C19
 - d) CYP2E1
5. Alkalinization of urine hastens the excretion of
 - a) Weakly basic drugs
 - b) Strong electrolytes
 - c) Weakly acidic drugs
 - d) Nonpolar drugs
6. Down regulation of receptors can occur as a consequence of
 - a) Continuous use of agonists
 - b) Continuous use of antagonists
 - c) Chronic use of CNS depressants
 - d) Denervation
7. cAMP is inactivated by the enzyme
 - a) Adenylyl cyclase
 - b) Guanylyl cyclase
 - c) Phospholipase
 - d) Phosphodiesterase

8. Which one of the following chemicals does not qualify the criteria for a neurotransmitter role in the CNS?
- Acetylcholine
 - GABA
 - Nitric oxide
 - Dopamine
9. Which one of the following statements best describes the mechanism of action of benzodiazepines?
- Benzodiazepines activate GABA_B receptors in the spinal cord
 - They increase the frequency of opening of chloride ion channels that are coupled to GABA_A receptors
 - They increase the duration of opening of chloride ion channels that are coupled to GABA_A receptors
 - They are direct-acting GABA receptor agonists in the CNS
10. Which of the following statement is incorrect regarding sodium valproate?
- Prolongation of Na⁺ channel inactivation
 - Facilitation of GABA mediated Cl⁻ channel opening
 - Inhibition of 'T' Type Ca²⁺ current
 - Inhibition of GABA transaminase
11. Respiratory depression caused by this agent may be reversed by administration of flumazenil.
- Desflurane
 - Phenobarbitone
 - Midazolam
 - Fentanyl
12. The correct order of stages of anesthesia
- Stage of analgesia, Stage of delirium, Surgical anesthesia, Medullary paralysis
 - Stage of delirium, Surgical anesthesia, Medullary paralysis, Stage of analgesia
 - Surgical anesthesia, Medullary paralysis, Stage of analgesia, Stage of delirium
 - Medullary paralysis, Stage of analgesia, Stage of delirium, Surgical anesthesia
13. Adrenaline is added to a solution of lidocaine for a peripheral nerve block
- To increase the risk of convulsions
 - To increase the duration of anesthetic action
 - To decrease the cardiovascular toxicity
 - All of the above

14. Which one of the following drugs has caused hyperkalemia leading to cardiac arrest in patients with neurologic disorders?
- Baclofen
 - Dantrolene
 - Succinylcholine
 - Tubocurarine
15. Which one of the following statements about bromocriptine is correct?
- It should not be administered to patients taking antimuscarinic drugs
 - It requires metabolic conversion to an active metabolite in Parkinson's disease
 - The drug should not be administered to patients already taking levodopa
 - It is contraindicated in psychotic patients
16. Tolcapone is used in patients treated with levodopa-carbidopa because it
- Activates catechol-O-methyltransferase (COMT)
 - Decreases formation of 3-O-methyldopa
 - Inhibits monoamine oxidase type B
 - Inhibits dopamine reuptake
17. The clinical uses of this drug include enuresis and chronic pain
- Imipramine
 - Fluvoxamine
 - Bupropion
 - Selegiline
18. Which one of the following drugs is most likely to increase plasma levels of alprazolam, theophylline, and warfarin?
- Desipramine
 - Fluvoxamine
 - Imipramine
 - Nefazodone
19. Which one of the following actions of opioid analgesics is mediated via activation of kappa receptors?
- Cerebral Vascular dilation
 - Decreased uterine tone
 - Euphoria
 - Sedation
20. Opioid receptors act via
- Opening of potassium channels
 - Inhibition of calcium channels
 - Both (a) and (b)
 - Opening of sodium channels

21. Which of the benzodiazepines is used only as a sedative and hypnotic?
- a) Chlordiazepoxide
 - b) Clonazepam
 - c) Diazepam
 - d) Flurazepam
22. Axonal uptake of noradrenaline is blocked by
- a) Cocaine
 - b) Reserpine
 - c) Tyramine
 - d) Guanethidine
23. Which of the following drugs is not substrate for monoamine oxidase (MAO) or catechol-O-methyltransferase (COMT)?
- a) Dopamine
 - b) Amphetamine
 - c) Mephentermine
 - d) Epinephrine
24. Active transport of acetylcholine into synaptic vesicle is blocked by
- a) Black widow spider toxin
 - b) Vesamicol
 - c) Botulinus toxin
 - d) Hemicholinium
25. Myasthenia gravis is treated by
- a) Neostigmine
 - b) Corticosteroids
 - c) Atropine
 - d) Both (a) and (b)
26. Propranolol is useful in all of the following except
- a) Angina
 - b) Partial atrioventricular heart block
 - c) Hypertension
 - d) Idiopathic hypertrophic subaortic cardiomyopathy
27. Postural hypotension is a common adverse effect of which one of the following types of drugs?
- a) ACE inhibitors
 - b) Arteriolar dilators
 - c) Alpha-receptor blockers
 - d) β_1 – selective receptor blockers

28. Which of the following diuretics would be most useful in a patient with cerebral edema?
- Acetazolamide
 - Amiloride
 - Furosemide
 - Mannitol
29. A drug that is useful in glaucoma and high-altitude sickness is
- Acetazolamide
 - Demeclocycline
 - Desmopressin
 - Ethacrynic acid
30. Characteristics of Vitamin D and its metabolites include which one of the following?
- Act to decrease serum levels of calcium
 - Activation of their Vitamin D receptors increases cellular cAMP
 - Calcitriol is the major derivative responsible for increasing intestinal absorption of phosphate
 - Metabolites of Vitamin D increase renal excretion of calcium
31. Ergotamine relieves migraine by
- Blocking vascular α adrenergic receptors
 - Blocking vascular 5-HT₂ receptors
 - Dilating cranial arterio-venous shunt channels
 - Constricting cranial vessels and reducing perivascular neurogenic inflammation
32. The toxicity of aspirin does not include
- Increased risk of encephalopathy in children with viral infections
 - Increased risk of peptic ulcers
 - Hyperprothrombinemia
 - Metabolic acidosis
33. Which of the following antibiotic does not contain a beta-lactam ring in their chemical structure?
- Cephalosporin
 - Penicillin
 - Carbapenems
 - Fluoroquinolones
34. All tetracyclines cause kidney damage except:
- Doxycycline
 - Minocycline
 - Demeclocycline
 - Oxytetracycline

35. Which is acid labile penicillin?
- a) Penicillin V
 - b) Cloxacillin
 - c) Penicillin G
 - d) Ampicillin
36. Fluoroquinolones are contraindicated during pregnancy and in children due to
- a) Gastrointestinal toxicity
 - b) Cartilage and tendon rupture
 - c) CNS toxicity
 - d) Seizures
37. Which of the following drug is used in the treatment of systemic mycoses and black fungus?
- a) Nystatin
 - b) Griseofulvin
 - c) Clotrimazole
 - d) Amphotericin B
38. Methotrexate has cell cycle specific action- kills cells in
- a) G1 phase
 - b) S phase
 - c) M phase
 - d) G2 phase
39. Which of the following statements are correct about cyclophosphamide except?
- a) It produces alopecia and cystitis
 - b) Aldo-phosphamide is active metabolite of cyclophosphamide
 - c) It has both immunosuppressive and anticancer activity
 - d) Chloramphenicol stimulates the metabolism of cyclophosphamide
40. Pulmonary fibrosis and mucocutaneous toxicities are caused by
- a) Daunorubicin
 - b) Doxorubicin
 - c) Bleomycin
 - d) Mitoxantone
41. All first line anti-TB drugs are bactericidal in nature except:
- a) Isoniazid
 - b) Rifampicin
 - c) Pyrazinamide
 - d) Ethambutol

42. Antimalarial drug is also used for the treatment of Rheumatoid arthritis.
- Chloroquine
 - Piperaquine
 - Amodiaquine
 - Mefloquine
43. Which of the following is not selective β_2 agonist?
- Salbutamol
 - Salmeterol
 - Ephedrine
 - Terbutaline
44. Which of the following methylated xanthine alkaloid is used for asthma and COPD?
- Theophylline
 - Caffeine
 - Theobromine
 - All of the above
45. Glucocorticoids have not been proved to be effective in the treatment of
- Acute lymphocytic leukemia
 - Addison's disease
 - Asthma
 - Osteoporosis
46. Gynecomastia can be treated with:
- Chlorpromazine
 - Cimetidine
 - Bromocriptine
 - Metoclopramide
47. All are the actions of parathormone except:
- To increase intestinal calcium absorption
 - To increase resorption of calcium from bone
 - To increase calcium reabsorption in kidney tubules
 - To inhibit calcium reabsorption in kidney tubules
48. Sulfonylureas are a primary mode of therapy in the treatment of:
- Insulin-dependent (type 1) diabetes mellitus patients
 - Diabetic pregnant women
 - Patient with diabetic ketoacidosis
 - Non-insulin-dependent (type 2) DM patients

49. Antacids should not be prescribed concurrently with

- a) Lansoprazole
- b) Pirenzepine
- c) Ranitidine
- d) Misoprostol

50. The most effective antiemetic for controlling cisplatin induced vomiting is

- a) Ondansetron
- b) Metoclopramide
- c) Promethazine
- d) Hyoscine

ANSWER KEYS PHARMACOLOGY MCQ QUESTION PAPER

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