

JELET-2024

Paper-II (For Pharmacy Candidates)

4092001229

(Booklet Number)

Duration: 2 Hours

No. of MCQ : 100

Full Marks: 100

INSTRUCTIONS

1. All questions are of objective type having four answer options for each.
2. Category-I MCQ : Carry 1 mark each and only one option is correct. In case of incorrect answer or any combination of more than one answer, $\frac{1}{4}$ mark will be deducted.
3. Questions must be answered on OMR sheet by darkening the appropriate bubble marked A, B, C, or D.
4. Use only **Black/Blue ink ball point pen** to mark the answer by complete filling up of the respective bubbles.
5. Write question booklet number and your roll number carefully in the specified locations of the **OMR Sheet**. Also fill appropriate bubbles.
6. Write your name (in block letter), name of the examination center and put your signature (as appeared in Admit Card) in appropriate boxes in the OMR Sheet.
7. The OMR Sheet is liable to become invalid if there is any mistake in filling the correct bubbles for question booklet number/roll number or if there is any discrepancy in the name / signature of the candidate, name of the examination center. The OMR Sheet may also become invalid due to folding or putting stray marks on it or any damage to it. The consequence of such invalidation due to incorrect marking or careless handling by the candidate will be sole responsibility of candidate.
8. Candidates are not allowed to carry any written or printed material, calculator, pen, log-table, wristwatch, any communication device like mobile phones, bluetooth etc. inside the examination hall. Any candidate found with such prohibited items will be **reported against** and his/her candidature will be summarily cancelled.
9. Rough work must be done on the question booklet itself. Additional blank pages are given in the question booklet for rough work.
10. Hand over the OMR Sheet to the invigilator before leaving the Examination Hall.
11. Candidates are allowed to take the Question Booklet after Examination is over.

Signature of the Candidate : _____
(as in Admit Card)

Signature of the Invigilator : _____

Pharma



(Booklet Number)

Full Marks: 100

No. of MCQ: 100

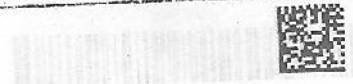
Duration: 2 Hours

INSTRUCTIONS

- All questions are of objective type having four answer options for each.
- Category-I MCQ: Carry 1 mark each and only one option is correct. In case of incorrect answer or any combination of more than one answer, 0 mark will be deducted.
- Questions must be answered on OMR sheet by darkening the appropriate bubble marked A, B, C or D.
- Use only Black/Blue ink ball point pen to mark the answer by complete filling up of the respective bubbles.
- Write question booklet number and your roll number carefully in the specified locations of the OMR Sheet. Also fill appropriate bubbles.
- Write your name (in block letter), name of the examination center and put your signature (as appeared in Admit Card) in appropriate boxes in the OMR Sheet.
- The OMR Sheet is liable to become invalid if there is any mistake in filling the correct bubbles for question booklet number or if there is any discrepancy in the name / signature of the candidate, name of the examination center. The OMR Sheet may also become invalid due to folding or putting stray marks on it or any damage to it. The consequence of such invalidation due to incorrect marking or careless handling by the candidate will be sole responsibility of candidate.
- Candidates are not allowed to carry any written or printed material, calculator, pen, log-table, wristwatch, any communication device like mobile phones, photograph etc. inside the examination hall. Any candidate found with such prohibited items will be reported against and further candidature will be summarily cancelled.
- Rough work must be done on the question booklet itself. Additional blank pages are given in the question booklet for rough work.
- Hand over the OMR Sheet to the invigilator before leaving the Examination Hall.
- Candidates are allowed to take the Question Booklet after Examination is over.

Signature of the Candidate
(as in Admit Card)

Signature of the Invigilator



Category-I (Q 1 to 100)

(Carry 1 mark each. Only one option is correct. Negative marks : - ¼)

1. First edition of Indian pharmacopoeia was published in
 (A) 1958 (B) 1945
 (C) 1955 (D) 1946
2. Ball mill works on the principle of :
 (A) Attrition (B) Compression
 (C) Impact (D) Combined impact & attrition
3. The active metabolite of spironolactone is
 (A) Desmethyl spironolactone (B) Canrenone
 (C) Acetylspironolactone (D) None of the above
4. Ophthalmic solution is sterilised by :
 (A) Autoclave (B) Hot air oven
 (C) Gaseous sterilization (D) Bacterial filtration
5. Muscle 'orbicularis oculi' found in
 (A) Nose (B) Mouth
 (C) Hand (D) Eye
6. Maximum allowed % of weight variation of tablet weighing 325 mg is :
 (A) 1.5% (B) 7.5%
 (C) 10% (D) 5%
7. What is medication adherence ?
 (A) The ability of a patient to follow a medication regimen.
 (B) The act of taking medication as prescribed.
 (C) The willingness of a patient to take medication.
 (D) All of the above
8. If angle of repose is in between 25-35°, type of flow is
 (A) excellent (B) satisfactory
 (C) good (D) very poor



9. Most abundant type of neurone found in CNS
 (A) Bipolar neurone (B) Unipolar neurone
 (C) Multipolar neurone (D) Tetrapolar neurone
10. Which of the following causes fruit ripening ?
 (A) Auxin (B) Cytokinin
 (C) Gibberellins (D) Ethylene
11. HLB value of sodium Lauryl sulphate is :
 (A) 6.5 (B) 13.8
 (C) 25.0 (D) 40.0
12. Blood cell that does not contain nucleus
 (A) Neutrophil (B) Monocytes
 (C) Lymphocytes (D) Erythrocytes
13. Enteric resin used for coating is :
 (A) Cellulose acetate phthalate (B) Hydroxy propyl methyl cellulose
 (C) Ethyl cellulose (D) Eudragit
14. The most widely used diluents in tablet formulation is
 (A) Dextrose (B) Lactose
 (C) MCC (D) Starch
15. Number of oxidative steps found in Kreb's cycle
 (A) 1 (B) 2
 (C) 3 (D) 4
16. The serum containing antibacterial antibodies is called :
 (A) Antitoxin (B) Antiserum
 (C) Toxoid (D) Immune blood derivatives
17. In the formulation of suspensions, generally which types of drugs are selected ?
 (A) Hydrophilic (B) Hydrophobic
 (C) Both (D) None



18. Oil of Wintergreen is
 - (A) Methyl salicylate
 - (B) Olive oil
 - (C) Salicylic acid
 - (D) Turpentine oil
19. Which of the following involves utilisation of the end results of drugs in a large population ?
 - (A) Pharmacokinetics
 - (B) Pharmacodynamics
 - (C) Pharmacoepidemiology
 - (D) Pharmacogenetics
20. Which of the following methods are generally used in liquid filling ?
 - (A) Gravimetric
 - (B) Volumetric
 - (C) Constant level method
 - (D) All of the above
21. Which of the following is the main symptom of congestive heart failure ?
 - (A) Heart stops beating
 - (B) Increases in blood pressure
 - (C) Acute chest pain
 - (D) Congestion of lungs
22. Co-enzyme A is formed from
 - (A) Niacin
 - (B) Riboflavin
 - (C) Pantothenic acid
 - (D) Folic acid
23. Which of the following body function is regulated by the thyroid producing hormones ?
 - (A) Digestion
 - (B) Temperature
 - (C) Metabolism
 - (D) Blood Pressure
24. The first recombinant antigen vaccine approved for human use is
 - (A) Hepatitis B Vaccine
 - (B) Hib Vaccine
 - (C) DPT Vaccine
 - (D) OPV
25. Formation of glucose from Non-carbohydrate source is known as
 - (A) Glycolysis
 - (B) Glucogenolysis
 - (C) Glycogenesis
 - (D) Gluconeogenesis



26. Chemically cephalosporin
 (A) 7-amino acid (B) 7-aminocephalosporanic acid
 (C) 5-cephalosporanic acid (D) 6-amino carboxylic acid
27. Which of the following is the most common of IDA in elderly ?
 (A) Malnutrition (B) Chronic Kidney disease
 (C) Medication side effect (D) Gastrointestinal blood loss
28. Metabolism of bilirubin includes
 (A) Fe^{2+} (B) NADP
 (C) NADPH_2 (D) All of the above
29. NLEM stands for
 (A) Normal List of Essential Medicines
 (B) Normal List of Emergency Medicines
 (C) National List of Essential Medicines
 (D) Novel List of Essential Medicines
30. Which of the following drugs is administered by intra-nasal spray/application for systemic action ?
 (A) Phenylephrine (B) Desmopressin
 (C) Azelastine (D) Beclomethasone dipropionate
31. A slowly progressive and degenerative disease affecting the nervous system is termed :
 (A) Stroke (B) Migraine
 (C) Alzheimer's disease (D) Parkinson's disease
32. Klier Killiani Test is specified for
 (A) Aglycon part of Digitalis glycoside
 (B) Glycon part of Digitalis glycoside
 (C) Both Glycon & Aglycon part
 (D) None of the above



33. Chemically which of the following is a weakly acidic drug ?
 (A) Atropine sulphate (B) Chloroquine phosphate
 (C) Ephedrine hydrochloride (D) Phenytoin sodium
34. Which of the following is a heteroglycan ?
 (A) Dextrins (B) Agar
 (C) Inulin (D) Chitin
35. Quinine and quinidine is differ in
 (A) Chemical structure (B) Solubility
 (C) Isomerism (D) None of the above
36. Photosensitive vitamin is
 (A) Thiamine (B) Riboflavin
 (C) Niacin (D) Cholecalciferol
37. A non-volatile, highly lipid soluble drug is metabolized at a rate of 15% per hour. On intravenous injection it produces general anaesthesia for 10 min. Which process is responsible for termination of its action ?
 (A) Metabolism in liver (B) Plasma protein binding
 (C) Excretion by kidney (D) Redistribution
38. Glycosphingolipids are a combination of
 (A) Ceramide with one or more sugar residues
 (B) Sphingosine with galactose
 (C) Glycerol with galactose
 (D) Sphingosine with phosphoric acid
39. It is the volume of air that passes into and out of the lungs by the most forceful inspiration and expiration.
 (A) Tidal volume (B) Vital Capacity
 (C) Expiratory reserve volume (D) None of the above
40. Barbituric acid is composed of
 (A) Urea and Succinic acid (B) Urea and malonic acid
 (C) Ammonia and malonic acid (D) Urea and maleic acid



41. Histamine is formed by the enzyme histidine decarboxylase in the presence of
 (A) NAD (B) FMN
 (C) Hs-CoA (D) B_6-PO_4
42. How-co-solvents increase the solubility of poorly soluble drugs ?
 (A) By reducing the interfacial tension between the predominant aqueous solution and hydro-phobic solute
 (B) By reducing the interfacial tension between solute and solvent
 (C) Both
 (D) None
43. The most commonly occurring conjugation reaction for drugs and their metabolites is
 (A) Glucuronidation (B) Acetylation
 (C) Methylation (D) Glutathione conjugation
44. Interferon is
 (A) Virus specific
 (B) Bacterial product
 (C) Synthetic antiviral agent
 (D) Requires expression of cellular genes
45. Benzalkonium chloride is categorized as
 (A) Acidic preservative (B) Neutral preservative
 (C) Mercurial preservative (D) Quaternary ammonium compounds
46. Intracellular concentration of sodium ion (Na^+) is
 (A) 5 – 15 mM/L (B) 10 – 15 mM/L
 (C) 2 – 5 mM/L (D) 0 – 2 mM/L
47. Initiation of protein synthesis begins with binding of
 (A) 40s ribosomal unit on mRNA
 (B) 60s ribosomal unit
 (C) Changing of tRNA with specific amino acid
 (D) Attachment of aminoacyl tRNA on mRNA



48. Composition of glass is
 (A) Sand (B) Soda ash
 (C) Limestone & Cullet (D) All of the above
49. Phosphorylation of adenosine to AMP is catalysed by
 (A) Adenosine kinase (B) Deoxycytidine kinase
 (C) Adenylosuccinase (D) Adenylosuccinate synthetase
50. A person returning from dinner party meets with road accident and has to be urgently operated upon under general anaesthesia. Which drug can be injected intramuscularly to hasten his gastric emptying
 (A) Methylpolysiloxane (B) Promethazine
 (C) Metoclopramide (D) Apomorphine
51. In Parkinson, there is a deficiency of
 (A) GABA (B) Acetylcholine
 (C) Nor-epinephrine (D) Dopamine
52. What is the significance of regularly reviewing and updating Patient Information Leaflets (PILs) ?
 (A) To ensure that information provided is accurate and up-to-date
 (B) To reduce the risk of medication errors
 (C) To comply with regulatory requirements
 (D) All of the above
53. Vincristine differs from vinblastine in the following respect
 (A) Its prominent adverse effect is neuropathy
 (B) It frequently produces alopecia
 (C) It does not significantly depress bone marrow
 (D) All of the above
54. Which benzodiazepine is useful in the management of status epilepticus ?
 (A) Diazepam (B) Alproazolam
 (C) Nitrazepan (D) Triazolam



55. What is the primary objective of supply chain management in hospital pharmacy ?
 (A) To increase the cost of drugs
 (B) To reduce the cost of drugs
 (C) To maintain an adequate supply of drugs
 (D) To increase the sale of drugs
56. Drug used to treat xerostomia
 (A) Pilocarpine
 (B) Carbachol
 (C) Acetylcholine
 (D) Edrophonium
57. Use of isoniazid is restricted due to
 (A) Ototoxicity
 (B) Hepatotoxicity
 (C) Neurotoxicity
 (D) Bone marrow depression
58. Bioassays are carried out to :
 (A) Measure the pharmacological activity of a drug
 (B) Avoid clinical trials for new drugs
 (C) Detect the impurity in a given drug
 (D) Screen from pharmacogenetic influences of new drugs
59. Which drug does not possess H_2 blocking properties but useful in peptic ulcer ?
 (A) Famotidine
 (B) Ranitidine
 (C) Omeprazole
 (D) Cimetidine
60. Ketoconazole contains _____ heterocyclic ring.
 (A) Imidazole
 (B) Acridine
 (C) Pyridine
 (D) Pyrimidine
61. Which of the following agents shows cytotoxicity that is cell cycle specific ?
 (A) Dactinomycin
 (B) Doxorubicin
 (C) Cisplatin
 (D) Methotrexate
62. Which of the following is CYP450 enzyme inhibitor ?
 (A) Grape juice
 (B) Rifampicin
 (C) Barbiturates
 (D) Carbamazepine



63. Which type of patient is most likely to be hyper sensitive to aspirin ?
 (A) Intrinsic asthmatic (B) Extrinsic asthmatic
 (C) Chronic bronchitis (D) Patient with viral infection
64. This drug can be used to increase calcium excretion in persons with hypercalcemia.
 (A) spironolactone (B) furosemide
 (C) acetazolamide (D) mannitol
65. Which one of these is contra indicated in the presence of active tuberculosis ?
 (A) Streptomycin (B) Hydrocortisone
 (C) PABA (D) PAS
66. Which of the following receptor shows the slowest response ?
 (A) GPCR (B) Ion channel
 (C) Enzyme linked (D) Steroid receptor
67. The following are some of the variables to consider while choosing a vendor except
 (A) Quality (B) Price
 (C) Slow delivery (D) Assurance of supply
68. β lactam ring fused with oxazolidine ring is named as
 (A) penam (B) carbapenam
 (C) clavam (D) monobactam
69. Which of the following is not used in redox titration ?
 (A) Phenolphthalein (B) 1, 10 phenanthroline
 (C) Diphenylamine (D) KMnO_4
70. Murmur is a disorder of which of the following ?
 (A) AV Nodes (B) SA Nodes
 (C) Heart valves (D) Pulmonary vein



71. Compounds with the same chemical formula but different structural formula are known as –
 (A) Aliphatic compounds (B) Polymers
 (C) Isotopes (D) Isomers
72. A genetically determined abnormal or unusual response to a drug is
 (A) Idiosyncrasy (B) Tolerance
 (C) Genetic polymorphism (D) Salicylism
73. Which of the following is not an example of intravenous anaesthetics?
 (A) Etomidate ketamine (B) Fentanyl
 (C) Diazepam (D) Halothane
74. Absorption of oral iron preparations can be facilitated by co-administering _____
 (A) Antacids (B) Ascorbic acids
 (C) Tetracyclines (D) Phosphates
75. Which one among the following is a cholinesterase reactivator?
 (A) Pralidoxime chloride (B) Endorphanium
 (C) Carbachol (D) Acetylcholine
76. Why insulin is important for our body?
 (A) It helps blood sugar to enter into the cell
 (B) It breaks sugar molecule in the blood
 (C) It keeps our sucrose level normal
 (D) It raises cholesterol level
77. Which drug is a potent inhibitor of HIV replication that acts as chain-terminator of viral DNA during reverse transcription?
 (A) Ribavirin (B) Zidovudin
 (C) Remdesivir (D) Faripiravir



78. Eye pressure is measured by
 (A) Sphygmomanometer (B) Ophthalmoscope
 (C) Tonometer (D) Phoropter
79. Ex-officio member means
 (A) External member (B) Member because of "chair"
 (C) Executive committee member (D) Ex-member of the committee
80. Advertisement of drugs claiming cure of disease mentioned in Schedule-J is
 (A) Granted (B) Prohibited
 (C) Exempted (D) None of above
81. All of the following statements concerning toxoids are true except
 (A) toxoids are detoxified toxins
 (B) toxoids are antigens
 (C) toxoids are often available in a precipitated or adsorbed form
 (D) toxoids produce permanent immunity
82. Lyophilization means
 (A) Sterilization (B) Freeze drying
 (C) Burning of ashes (D) Fumigation
83. What is the primary muscle responsible for inspiration at rest ?
 (A) Diaphragm (B) Intercostal muscle
 (C) Abdominal muscle (D) Pectoral muscle
84. According to Biopharmaceutics Classification System, Class IV drugs have
 (A) High Solubility/High Permeability
 (B) Low Solubility/High Permeability
 (C) High Solubility/Low Permeability
 (D) None of the above



85. Schedule P deals with the
 (A) Prescription drugs (B) Life Period of drugs
 (C) Caution on the label (D) Packing of drugs
86. Which among the following is an essential amino acid for human ?
 (A) Alanine (B) Glutamic acid
 (C) Serine (D) Valine
87. What is the size range of microspheres ?
 (A) 1 – 1000 μm (B) 1 – 1000 nm
 (C) 1 – 10 μm (D) 0.1 – 10 μm
88. Apoptosis is
 (A) Programmed cell death (B) Programmed cell regeneration
 (C) All of the above (D) None of the above
89. Lignified trichomes are present in
 (A) Nux vomica (B) Senna
 (C) Belladonna (D) All of the above
90. 1-fluoro 2,4-dinitrobenzene is also known as
 (A) Sanger's reagent (B) Sorensen's reagent
 (C) Edman's reagent (D) Sakaguchi's reagent
91. Which one of these is immunomodulatory drug ?
 (A) Brahmi (B) Ashwagandha
 (C) Amla (D) Digitalis
92. Seidlitz powder is a
 (A) Compounds effervescent powder
 (B) Dusting powder
 (C) Draught
 (D) None of the above



93. Syphilis caused by :
 (A) Treponema pallidum (B) Niesseria gonorrhoea
 (C) Phthirus humanus (D) None of the above
94. Invert sugar consists of equal parts of
 (A) Dextrose and laevulose (B) Dextrose and sucrose
 (C) Fructose and sucrose (D) Glucose and fructose
95. Intrinsic factor for absorption of iron is :
 (A) Vitamin B₆ (B) Vitamin D
 (C) Vitamin B₁₂ (D) Vitamin A
96. Polio virus mainly replicates in
 (A) Lungs (B) GIT
 (C) Liver (D) All of the above
97. Ascariasis is transmitted through :
 (A) Contaminated water (B) Contaminated milk
 (C) Flesh food (D) Raw vegetables & salads
98. Hansen's disease is also known as
 (A) Tetanus (B) Tuberculosis
 (C) Gonorrhoea (D) AIDS
99. A very fine powder is defined as one which can pass through sieve no :
 (A) 80 (B) 40
 (C) 120 (D) 20
100. Captopril lowers blood pressure by :
 (A) Inhibition of calcium influx
 (B) Inhibition of enzyme peptidyl dipeptidase
 (C) Relaxation of smooth muscle
 (D) None of the above



SPACE FOR ROUGH WORK

93. Syphilis caused by :
 (A) Treponema pallidum
 (B) Mycobacterium tuberculosis
 (C) Pityriasis versicolor
 (D) None of the above
94. Invert sugar consists of equal parts of
 (A) Dextrose and levulose
 (B) Dextrose and sucrose
 (C) Fructose and sucrose
 (D) Glucose and fructose
95. Intrinsic factor for absorption of iron is :
 (A) Vitamin B₁₂
 (B) Vitamin D
 (C) Vitamin B₆
 (D) Vitamin A
96. Polio virus mainly replicates in
 (A) Lungs
 (B) GIT
 (C) Liver
 (D) All of the above
97. Ascariasis is transmitted through :
 (A) Contaminated water
 (B) Contaminated milk
 (C) Fresh food
 (D) Raw vegetables & salads
98. Hansen's disease is also known as
 (A) Tetanus
 (B) Tuberculosis
 (C) Gonorrhoea
 (D) AIDS
99. A very fine powder is defined as one which can pass through sieve no :
 (A) 80
 (B) 40
 (C) 120
 (D) 20
100. Captopril lowers blood pressure by :
 (A) Inhibition of calcium influx
 (B) Inhibition of enzyme peptidyl dipeptidase
 (C) Relaxation of smooth muscle
 (D) None of the above

