



GURUGRAM UNIVERSITY, GURUGRAM

(A State Govt. University established under Haryana Act 17 of 2017)

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No. GUG/Conduct/2024/218

Date: 12/08/2024

NOTICE

Subject: Question Paper along with Answer Key of the Entrance test held on 12-08-2024 for admissions in Master of Pharmacy.

It is hereby informed to all the concerned applicants that the question paper along with the Answer Key of the above cited Entrance Test is attached herewith for publishing on University website i.e.. <https://gurugramuniversity.ac.in>.

The observations/ representations/ objections, if any, in this regard may be intimated upto **13-08-2024 (Tuesday)** through e-mail only at conduct@gurugramuniversity.ac.in. No observations/ representations/ objections will be considered thereafter.

**Assistant Registrar (Conduct)
For Controller of Examinations**

Encl.: As above

Copy to:

1. All Concerned.
2. Controller of Examination for kind Information.
3. I/c UCDAC: for uploading on University website

Test Booklet

Series

A

Entrance Examination

Master of Pharmacy

Test Booklet No.

Name of Applicant Answer Sheet No.

Applicant ID/Roll No. : Signature of Applicant :

Date of Examination: Signature of the Invigilator(s)

1.

Time of Examination :

2.

Duration : 1 Hour]

[Maximum Marks : 50

IMPORTANT INSTRUCTIONS

- (i) The question paper is in the form of Test-Booklet containing **50 (Fifty)** questions. Each question carries four answers marked (A), (B), (C) and (D), out of which only one is correct.
- (ii) On receipt of the Test-Booklet (Question Paper), the candidate should immediately check it and ensure that it contains all the pages, i.e., **50** questions (Q.No. 1-50). Discrepancy, if any, should be reported by the candidate to the invigilator immediately after receiving the Test-Booklet.
- (iii) A separate Answer-Sheet is provided with the Test-Booklet/Question Paper. On this sheet there are **50** rows containing four circles each. One row pertains to one question.
- (iv) The candidate should write his/her Application ID/Roll Number at the places provided on the cover page of the Test-Booklet/Question Paper and on the Answer-Sheet and **NOWHERE ELSE**.
- (v) No second Test-Booklet/Question Paper and Answer-Sheet will be given to a candidate. The candidates are advised to be careful in handling it and writing the answer on the Answer-Sheet.
- (vi) For every correct answer of the question **One (1) mark will be awarded**. For every unattempted question, Zero (0) mark shall be awarded. **There is no Negative Marking**.
- (vii) Marking shall be done only on the basis of answers responded on the Answer-Sheet.
- (viii) To mark the answer on the Answer-Sheet, candidate should **darken** the appropriate circle in the row of each question with Blue or Black pen.
- (ix) For each question only **one** circle should be **darkened** as a mark of the answer adopted by the candidate. If more than one circle for the question are found darkened or with one black circle any other circle carries any mark, the question will be treated as cancelled.
- (x) The candidates should not remove any paper from the Test-Booklet/Question Paper. Attempting to remove any paper shall be liable to be punished for use of unfair means.
- (xi) Rough work may be done on the blank space provided in the Test-Booklet/Question Paper only.
- (xii) *Mobile phones (even in Switch-off mode) and such other communication/programmable devices are not allowed inside the examination hall.*
- (xiii) No candidate shall be permitted to leave the examination hall before the expiry of the time.

DO NOT OPEN THIS QUESTION BOOKLET UNTIL ASKED TO DO SO.

- The wave number of C=O absorption of formaldehyde, acetaldehyde and acetone is
 - 1715 cm^{-1} , 1745 cm^{-1} , 1750 cm^{-1}
 - 1745 cm^{-1} , 1750 cm^{-1} , 1715 cm^{-1}
 - 1750 cm^{-1} , 1745 cm^{-1} , 1715 cm^{-1}
 - All of the above
- Conjugation causes
 - Increase the absorption frequency
 - Decrease the absorption frequency
 - None of above
 - Both (a) and (b)
- Number of H^1 NMR signal in tetramethyl methane is
 - Four
 - Three
 - Two
 - One
- In paper partition chromatography
 - Paper is used as inert support
 - Paper is used as stationary phase
 - Paper is used as mobile phase
 - None of above
- Which of the following aminoglycoside antibiotic primarily produces vestibular toxicity?
 - Gentamicin
 - Amikacin
 - Kenamycin
 - Bleomycin
- Solvent programming, also called gradient elution, involves
 - Changing the column length
 - Changing the mobile phase composition
 - Using the mobile phase unchanged
 - Successive injection of sample
- Quinolone act by following mechanism
 - Inhibiting cell wall forming enzymes
 - Inhibiting protein synthesis by binding with 30s ribosomal subunit
 - Inhibiting bacterial topoisomerase II and topoisomerase IV
 - Inhibiting protein synthesis by binding with 50s ribosomal subunit
- Cloxacillin is an example of
 - Quinolones
 - Penicillin
 - Tetracycline
 - Aminoglycosides
- Ozonolysis of alkene can produce
 - Aldehyde
 - Ketone
 - Both aldehyde and ketone
 - None of above
- IUPAC Name of cetirizine is
 - [2-[4-[(4-Chlorophenyl) phenylmethyl]-1-piperedenyl] ethoxy]acetic acid
 - [2-[4-[(4-Chlorophenyl) phenylmethyl]-1-piperaziny]ethoxy] acetic acid
 - [2-[4-[(4-Chlorophenyl)phenylmethyl]-1-pyridenyl]ethoxy] acetic acid
 - [2-[4-[(4-Chlorophenyl)phenylmethyl]-1-phenyl]ethoxy] acetic acid
- What type of mathematical models are commonly used in QSAR studies?
 - Linear regression
 - Exponential regression
 - Logistic regression
 - Non-parametric regression
- Which type of HPLC column packing material is most commonly used in reversed-phase HPLC?
 - Silica gel
 - Polystyrene-divinylbenzene (PS-DVB)
 - C-18 bonded phase
 - Ion-exchange resin

13. Zidovudine is an analogue of

- (a) Thymidine
- (b) Inosine
- (c) Pyrimidine
- (d) Uracil

14. Lovastatin is derived from

- (a) Fungi
- (b) Plants
- (c) Animals
- (d) Bacteria

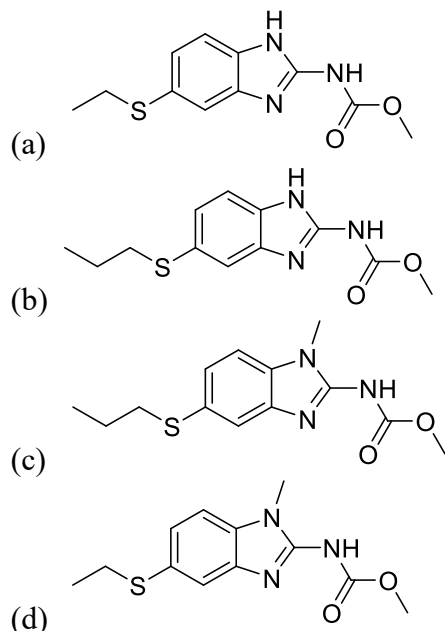
15. Melphalan is an example of

- (a) Alkyl sulphonate
- (b) Nitrourease
- (c) Antimetabolite
- (d) Nitrogen Mustard

16. Sulfonamide acts as

- (a) Competitive enzyme inhibitor of dihydropteroate synthetase
- (b) Block the biosynthesis of tetrahydrofolate
- (c) Both a and b
- (d) None of above

17. The chemical structure of albendazole is



18. Reactant used for the synthesis of Orthocaine is

- (a) o-Hydroxy benzoic acid
- (b) m-Hydroxy benzoic acid
- (c) p-Hydroxy benzoic acid
- (d) None of the above

19. Example of synthetic opioid

- (a) Pethidine
- (b) Codeine
- (c) Morphine
- (d) All of above

20. Trimeprazine belongs to

- (a) Aminoalkyl ether
- (b) Phenothiazine
- (c) Propylamines
- (d) Piprazine

21. Carr's Index (%) is used to determine

- (a) Powder flow
- (b) Particle size
- (c) Elasticity
- (d) Polymorphism

22. Which of the following is not a chelating agent?

- (a) Ethylene diamine
- (b) Tripyridyl
- (c) EDTA
- (d) Citric acid

23. If the angle of repose of a given powder is between $31^\circ - 35^\circ$, the type of flow is

- (a) Excellent
- (b) Good
- (c) Passable
- (d) Very poor

24. Antimycobacterial agent NOT absorbed orally

- (a) Isoniazid
- (b) Streptomycin
- (c) Rifampin
- (d) Ethambutol

25. Mottling is referred to deformity in

- (a) Color
- (b) Shape
- (c) Flavour
- (d) Thickness

26. In which state of matter mass spectroscopy is being performed?

- (a) Solid
- (b) Liquid
- (c) Gaseous
- (d) Plasma

27. Enteric coated tablets are initially tested for disintegration in
- Simulated gastric fluid
 - Simulated intestinal fluid
 - Purified water
 - Phosphate buffer (pH 7.4)
28. Emulsions made with Tweens are usually
- Unstable
 - W/O
 - O/W
 - Clear
29. Amorphous forms of drugs are
- Usually less soluble than crystal forms
 - Usually more soluble than crystal forms
 - Also called solvates
 - Practically insoluble
30. Tweens are
- Highly polymerized mannuronic acid anhydrides
 - Phospholipids
 - Polyoxyethylene sorbitan
 - Glycosides
31. All of the following statements concerning chemical degradation are true except
- As temperature increases, degradation decreases
 - Most drug degrades by a first-order process
 - Chemical degradation may produce a toxic product
 - Chemical degradation may affect the therapeutic activity of a drug
32. Pharmaceutical importance of Simethicone is
- Antiadherent
 - Antifoaming
 - Glidant
 - Emulsifying agent
33. Penicillamine is a
- Humectant
 - Surfactant
 - Chelating agent
 - None of the above
34. Diluent is added in tablet formulation to
- Increase the bulk
 - Help in disintegration
 - Increase the stability
 - All of the above
35. What concentration of sodium chloride is isotonic with blood plasma?
- 0.5% w/v
 - 0.9% w/v
 - 15 % w/v
 - 20% w/v
36. Most significant factor in blood flow resistance is
- Blood viscosity
 - Vessel radius
 - Vessel length
 - Intravascular volume
37. Swelling Index is used to determine the amount of following in the crude drugs
- Moisture
 - Volatile oils
 - Crude fibres
 - Mucilage
38. Vanilla belongs to family
- Leguminosae
 - Asclepidaceae
 - Orchidaceae
 - Polypodiaceae
39. Stomata present in Senna is of following type
- Anamocytic
 - Aminocytic
 - Paracytic
 - Diacytic
40. Abietic acid is a major constituent of colophony, it is
- Monoterpene
 - Diterpene
 - Sesquiterpene
 - Triterpene

41. The drug having very good antiemetic properties is
- (a) Fennel
 - (b) Ginger
 - (c) Turmeric
 - (d) Coriander
42. Cardamom belongs to family
- (a) Umbelliferae
 - (b) Myrtaceae
 - (c) Araceae
 - (d) Zingiberaceae
43. Excessive consumption of liquorice leads to
- (a) Diarrhoea
 - (b) Drowsiness
 - (c) Dryness in the mouth
 - (d) Hypertension
44. Examples of biological second messengers
- (a) cAMP
 - (b) phosphoinositide
 - (c) cGMP
 - (d) all the above
45. In "Fight or flight" activation of the ANS
- (a) pupillary constriction
 - (b) blood flow shifted from cutaneous beds to skeletal muscle
 - (c) blood glucose falls
 - (d) bronchiolar constriction
46. Phase of the cardiac action potential that principally determines heart rate
- (a) phase 0
 - (b) phase 4
 - (c) phase 2
 - (d) phase 3
47. The mechanism of action of prazosin is
- (a) α -1 adrenergic receptor antagonist
 - (b) β -receptor blocker
 - (c) phosphodiesterase inhibitor
 - (d) calcium channel blocker
48. Site of action of thiazide diuretics
- (a) Sodium channel blockade in late distal tubule and collecting duct
 - (b) Mineralocorticoid receptors
 - (c) Sodium, chloride cotransporter at the distal convoluted tubule
 - (d) loop of Henle
49. Which one of the following drugs is classified as a centrally acting adrenergic antihypertensive agent?
- (a) Bisoprolol
 - (b) Clonidine
 - (c) Labetalol
 - (d) Guanadrel
50. How do sulfonylureas work to decrease blood glucose levels?
- (a) Stimulate the release of insulin
 - (b) Decrease insulin production
 - (c) Sulfonylureas work the same as insulin
 - (d) Decreases desire to eat sweets

Rough Work

Q. No	Answer
1	c
2	b
3	d
4	a
5	a
6	b
7	c
8	b
9	c
10	b
11	a
12	c
13	a
14	a
15	d
16	c
17	b
18	c
19	a
20	b
21	a
22	b
23	b
24	b
25	a
26	c
27	a
28	c
29	b
30	c
31	a
32	b
33	c

34	a
35	b
36	b
37	d
38	c
39	c
40	b
41	b
42	d
43	d
44	d
45	b
46	b
47	a
48	c
49	b
50	a