

Roll No.
Total No. of Questions : 12

Total No. of Pages : 02

Pharm.D (Sem.-1)
PHARMACEUTICS

Subject Code : PD102T-19

M.Code : 78160

Date of Examination : 20-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contains SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contains EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contains THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Define the following :
 - a) What are ointments?
 - b) What are the various parts of a prescription?
 - c) When was the first edition of USP published?
 - d) What is isotonic solution?
 - e) What is explosive powder?
 - f) Define lotions and liniments.
 - g) What are sutures and ligatures?

SECTION - B

2. Discuss the various factors affecting dose selection.
3. What are the compound powders and insufflations?
4. Write a short note on the history of pharmacy profession in relation to industry.

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5. Explain the basic formulation of gargles and mouth washes.
6. Discuss the various tests for testing of emulsions.
7. Write a short note on decoction.
8. Elaborate various formulation methods for suppositories.
9. Classify the various surgical aids with examples.

SECTION - C

10. Discuss in detail about development of Indian Pharmacopoeia. Give salient features of IP 2008.
11. Write a detailed note on the various types of incompatibilities with examples.
12. What are galenicals? Explain the process of percolation and maceration in detail.

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Total No. of Pages : 02

D. Pharma (Sem.-1)
PHARMACEUTICAL ORGANIC CHEMISTRY
Subject Code : PD104T-19
M.Code : 78162
Date of Examination : 27-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contain EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contain THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Write briefly :

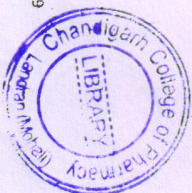
- Give the name of $\text{CH}_3\text{CH}_2\text{CH}_2\text{C}(\text{Cl})\text{CH}_2\text{CH}_2\text{CH}_3$.
- Define the term structural isomerism.
- What is protic molecule?
- What do mean by melting point of organic compounds?
- Give the importance of free radical substitution.
- Discuss the rearrangement of carbocations.
- Discuss diazotization reaction.

SECTION - B

- Describe dehydrohalogenation reaction. Also give the reaction kinetics.
- Write a detailed note on SN1 reaction with detailed mechanism.

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4. Explain Baeyer's Strain theory.
5. Write a brief note on classification and stability of dienes.
6. Explain basicity of amines.
7. Classify carbohydrates. Give the importance of Keller Kiliani test.
8. Discuss the nucleophilic addition reactions of carbonyl compounds.
9. Explain Reimer-Tiemann reaction with example.

SECTION - C

10. Write an exhaustive note on acidity of carboxylic acids.
11. Describe Aldol and crossed aldol condensation.
12. Give an account of Fiedel craft alkylation and Perkin reaction.

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Total No. of Pages : 02

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Pharm. D.
(Sem.-1)
PHARMACEUTICAL INORGANIC CHEMISTRY

Subject Code : PD105T-19

M.Code : 78163

Date of Examination : 31-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION contains SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contains EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contains THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Write briefly :
 - a) Define normality and molarity.
 - b) Write the Henderson-Hasselbalch equation.
 - c) What is post-precipitation?
 - d) Define oxidation and reduction.
 - e) Write the principle for limit test for chlorides.
 - f) What are the medicinal uses of oxygen?
 - g) Define cathartics with examples.

SECTION - B

1. Write a short note on the various acid-base concepts.
2. Explain iodometry and iodimetry with examples.
3. $\text{[Mn}^{2+}\text{]} = 7.5 \times 10^{-3}$

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4. Discuss the various types of complexometric titrations.
 5. What are antimicrobial agents? Give details of potassium permanganate.
 6. Give the principle and pharmaceutical applications of non-aqueous titrations.
 7. Elaborate the steps involved in the limit test for iron.
 8. Write a short note on expectorants.
 9. What are dentifrices? Explain calcium carbonate in detail.
- SECTION - C**
10. What are precipitation titrations? Discuss Mohr's and Volhard's methods in detail.
 11. Write a detailed note on essential and trace elements.
 12. What are electrolytes? Explain the various electrolytes used in acid-base therapy.

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Total No. of Pages : 02

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Pharma. D. (Sem.-1)
MEDICINAL BIOCHEMISTRY
Subject Code : PD103T-19
M.Code : 78161

Date of Examination : 06-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contain EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contain THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Write briefly :

- a. What is the significance of cyclic AMP?
- b. Define co-enzymes with example.
- c. Give the glucose tolerance test and its significance.
- d. Give examples of uncouplers of ETC.
- e. What is jaundice? How it is caused?
- f. What are urinary tract calculi?
- g. How are chlorides determined in the body fluids?

SECTION - B

2. Discuss in brief about cell and its biochemical organization.
3. What are isoenzymes? Give their therapeutic and diagnostic applications.
4. Write a short note on citric acid cycle.

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5. Explain the process of ketogenesis and ketolysis.
6. Discuss the process of oxidative phosphorylation.
7. Write a short note on DNA replication.
8. Elaborate the various kidney function tests.
9. Explain the basic principles of Radio Immuno Assay (RIA).

SECTION - C

10. What are the various pathways for carbohydrate metabolism? Discuss the various steps involved in glycolysis along with the energetics and significance.
11. Write a detailed note on transamination, deamination and decarboxylation. Also, discuss urea cycle in brief.
12. Write in brief about :
 - a. Beta oxidation
 - b. Protein synthesis
 - c. Liver function tests

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Pharm.D (Sem.-2)

PHARMACOLOGY-I

M.Code. : 80145

Date of Examination : 19-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contain EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contain THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION-A

1. Answer briefly:

- Name two drugs used in Parkinsonism and their mechanism of action.
- Define pharmacokinetics
- What are the different routes of drug administration?
- What are the contraindications of local anesthetics?
- What is the role of drug metabolism in pharmacology?
- List two adrenergic drugs and their therapeutic uses.
- Define and differentiate between mydriatics and miotics.

SECTION-B

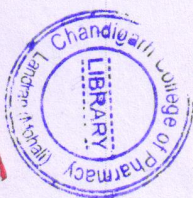
2. Differentiate between expectorants and mucolytics with examples.
3. Explain the mechanism of action and uses of anticholinergic drugs.
4. What are sedatives and hypnotics? Give examples and their mechanism of action.
5. Write a short note on drug toxicity and its classification.
6. Explain the role of insulin analogs in diabetes management.
7. Describe the pharmacological classification of antihypertensive drugs.
8. Explain the pharmacology of antiarrhythmic drugs.
9. Discuss the therapeutic uses of antihistaminic drugs.

SECTION-C

10. Explain in detail the pharmacokinetics and pharmacodynamics of drugs with suitable examples.
11. Describe in detail the pharmacology of bronchodilators and their role in respiratory diseases.
12. Discuss the classification, mechanism of action and adverse effects of analgesic and anti-inflammatory drugs.

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Pharm.D (Sem.-2)
PHARMACOTHERAPEUTICS-I

Subject Code : PD206T-19

M.Code : 80147

Date of Examination : 22-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contains EIGHT questions. Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contains THREE questions. Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION-A

1. Write briefly :

- a) Explain the pathophysiology of COPD.
- b) Describe Hormone Replacement therapy.
- c) Describe the mechanism of beta blockers in hypertension.
- d) What are the main causes of MI?
- e) Explain the concept of essential drug formulations.
- f) What are the different types of angina?
- g) Write a note on CCF.

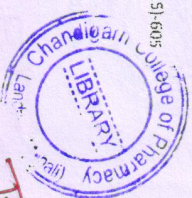
SECTION-B

2. Explain the management of acute asthma attacks.
3. Write a note on drug induced pulmonary disease.
4. What are the etiological factors and pharmacological treatment of hyperlipidemia?
5. Discuss the management of hyperthyroidism.
6. Discuss the role of insulin in type-1 diabetes.
7. Describe the pharmacological intervention of osteoporosis.
8. Explain the electrophysiology of heart.
9. Explain the pharmacists in rational drug use.

SECTION-C

10. Write a note on bacterial conjunctivitis.
11. Define the management of open and closed angle glaucoma.
12. Discuss the pharmacotherapy of hypertension.

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Total No. of Pages : 02

Total No. of Questions : 12

Pharm.D (Sem.-2)
PHARMACOLOGY & PHYTOPHARMACEUTICALS

Subject Code : PD203T-19
M.Code : 80144

Date of Examination : 26-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION A contains SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contains EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contains THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Write briefly :
 - a) Explain the vein-islet termination.
 - b) What are calcium oxalate crystals?
 - c) Define Pharmacognosy.
 - d) Define protein.
 - e) How will you identify carbohydrates in crude drugs?
 - f) What is the biological source of acacia?
 - g) Explain percolation method.

SECTION - B

2. Describe the classification and chemistry of proteins.
3. Compare the protein and lipid containing drugs.

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4. Describe the different methods of extraction of lipids.
5. Discuss the role of carbohydrates containing crude drugs in the therapeutic purposes.
6. Discuss the natural pesticides.
7. Describe cell wall constituents and cell inclusions.
8. Discuss lycopodium spore method and mention its formula.
9. Elaborate about tragacanth, honey and agar in detail.

SECTION - C

10. Adulteration method of crude drugs is an advantage or disadvantage? Explain.
11. Explain the detailed method of cultivation of crude drugs including its storage.
12. Discuss the impact of classification of crude drugs.

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Total No. of Questions : 12

Total No. of Pages : 02

Pharm.D (Sem.-2)
PATHOPHYSIOLOGY
Subject Code : PD201T-19
M.Code : 80142

Date of Examination : 29-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contain EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contain THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

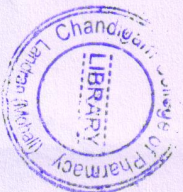
1. Write briefly :

- a) Enlist Water soluble vitamins.
- b) What is anaplasia?
- c) What is regeneration and repair?
- d) Draw and label AIDS virus.
- e) What is myasthenia gravis?
- f) Define carcinogenicity.
- g) Define shock, mention the types of shock.

SECTION - B

2. What is Necrosis? Write about the pathogenesis of necrosis.
3. Explain the process of wound healing.

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4. Write a short note on Type - II hypersensitivity reaction.
5. Discuss the pathogenesis of cancer.
6. Explain the mechanism of cardiogenic shock.
7. Explain the biological effects of radiation.
8. Differentiate between marasmus and kwashiorkor.
9. Describe the pathogenesis of schizophrenia.

SECTION - C

10. Explain the various types of cell injury with examples. Discuss the etiology of cell injury.
11. Explain the etiology, pathogenesis, sign and symptoms of tuberculosis.
12. What is diabetes mellitus? Describe the pathogenesis of type - 2 diabetes mellitus.

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Total No. of Pages : 02

Pharm.D (Sem.-2)
COMMUNITY PHARMACY
Subject Code : PD205T-19
M.Code : 80146
Date of Examination: 03-06-2023

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contain EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contain THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Write briefly :

- a. Write about Role and responsibilities of community Pharmacist.
- b. Write briefly about the use of computers in community pharmacy.
- c. Define a prescription and its legality.
- d. Write about causes and prevention of Leprosy.
- e. Write briefly about primary management of Constipation.
- f. Write about OTC medication and their significance and disadvantages
- g. Define buffer stock and its significance.

SECTION - B

2. Write a note on staff requirements, coding and stocking in a community pharmacy.
3. What are the various methods of inventory control techniques? Explain any one method.

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4. Explain in detail about principles of pharmaceutical care.
5. Discuss about care and precautions in drug therapy for pregnant and lactating women.
6. Write various tests for lung function, their methods and importance.
7. Write a detailed note on balanced diet, its components and significance.
8. Discuss about care and drug usage in geriatric patients.
9. Discuss about AIDS.

SECTION - C

10. Discuss in detail about patient information leaflet, its content, design, layout and advisory labels.
11. Discuss in detail about causative agents, clinical presentation and prevention of sexually transmitted diseases.
12. Discuss in detail about legal requirements and registers to be maintained for a community pharmacy.

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Total No. of Questions : 12

Total No. of Pages : 02

Pharm.D (Sem.-2)
PHARMACOTHERAPEUTICS-II

Subject Code : PD303T-19

M.Code : 92167

Date of Examination : 14-06-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

- SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
- SECTION-B contains EIGHT questions. Attempt any SIX questions. Each question will carry FIVE marks.
- SECTION-C contains THREE questions. Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION-A

1. Answer briefly :

- Discuss the treatment of fungal infections.
- Differentiate between tuberculosis and respiratory tract infections.
- Enlist the prophylactic use of antibiotics in surgical procedures.
- Explain the concept of rational antibiotic use.
- Give any four examples of commonly used chemotherapeutic agents.
- Define impetigo.
- Define septicemia.

SECTION - B

- Describe the mode of transmission, clinical manifestations and treatment options for gonorrhea and syphilis.
- Describe the differences between eczema and impetigo, including their clinical presentation.

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SECTION - C

- Discuss the pathophysiology and pharmacological management of rheumatoid arthritis, focusing on Disease-Modifying Anti-Rheumatic Drugs (DMARDs).
- Compare and contrast chronic renal failure and acute renal failure, focusing on their etiology, clinical features and long-term management, including the role of renal dialysis.
- Explain the pathophysiology of psoriasis and discuss the pharmacological treatment options available, including topical and systemic therapies.

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Total No. of Questions : 12

Total No. of Pages : 02

**Pharm.D (Sem.-2)
PHARMACEUTICAL MICROBIOLOGY**

Subject Code : PD202T-19

M.Code : 80143

Date of Examination : 05-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contains SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contains EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contains THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Write briefly :

- a. Explain minimum inhibitory concentration.
- b. Who is the father of modern microbiology? Write down his contribution.
- c. Define antigenicity.
- d. Draw a labeled bacterial growth curve.
- e. Define selective media with an example.
- f. Explain pure culture.
- g. Write a note on the virus.

SECTION - B

2. Write a short note on rickettsiae.
3. Describe various methods used in the identification of bacteria.

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4. Describe the principle of Schick's test.
 5. Discuss in detail the bacteria counting techniques.
 6. Explain the evaluation of preservatives in pharmaceutical preparations.
 7. Write a note on cholera.
 8. Discuss in detail about the malaria parasite.
 9. Discuss the principle and procedure of gram staining.
- SECTION - C**
10. What is sterilization and explain the physical methods of sterilization.
 11. What is the principle procedure and application of the Southern blotting technique?
 12. Discuss in detail about the significance of toxoids in active immunity.

Total No. of Pages : 02

Total No. of Questions : 12

Pharm.D. (Sem.-3)
MEDICINAL CHEMISTRY

Subject Code : PD305T-19

M.Code : 92169

Date of Examination : 12-06-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES:

1. SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contain EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contain THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Answer briefly :

- What is the role of antiarrhythmic agents in cardiology?
- Name a commonly used thyroid agent.
- Name two important antibiotics from the aminoglycoside class and mention one characteristic feature that distinguishes aminoglycosides from other antibiotic classes.
- Name two physicochemical parameters commonly used in Quantitative Structure-Activity Relationship (QSAR) studies.
- Differentiate between Amphotericin-B and Nystatin in terms of their primary clinical uses.
- Explain how Ketoconazole and Fluconazole differ in their mechanism of action, emphasizing their impact on fungal infections.
- Explain the historical significance of β -lactam antibiotics in the field of medicine. Highlight one key discovery or event related to their development.

SECTION - C

10. Define antimalarial agents. Write down the classification along with one structure, synthesis of chloroquine and MOA of antimalarial agents.
11. What do you understand by antiviral agents give classification and elaborate Reverse transcriptase inhibitors with structures?
12. What are anti-protzoal agents? Give the structures of Iodoquinol and Metronidazole.

SECTION - B

2. Give the synthesis and uses of chloramphenicol.
3. Elaborate the SAR of Quinolones.
4. Write a short note of cephalosporines.
5. What are anti-arrhythmic drugs? Classify these drugs with suitable examples.
6. Define antifungal agents. Elaborate azoles antifungal with structures and MOA of each class of azoles.
7. Write a note on Anti-protozoal agents.
8. Define and classify penicillins? Write the degradation products of penicillin.
9. Draw structures of any four anti-coagulants. Give structures of warfarin.

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Total No. of Pages : 02

Date of Examination: 10-06-2025

Max. Marks : 70

Pharm.D. (Sem.-3)
PHARMACEUTICAL JURISPRUDENCE
Subject Code : PH307-3

M.Code : 92168

INSTRUCTIONS TO CANDIDATES :

1. SECTION A is **COMPULSORY** consisting of **SEVEN** questions carrying **TWO** marks each and attempt any **FIVE** question.
2. SECTION - B contains **EIGHT** questions carrying **FIVE** marks each and attempts any **SIX** questions.
3. SECTION – C contains **THREE** questions carrying **FIFTEEN** marks each and attempts any **TWO** questions.

SECTION - A

1. Write short notes on :
 - a) Differentiate between adulterated and spurious drugs.
 - b) Loan license.
 - c) What are Proprietary preparations?
 - d) Define NDP.
 - e) What are the functions of Institutional Animal Ethics Committee?
 - f) Define DTAB.
 - g) Define schedule J & K.

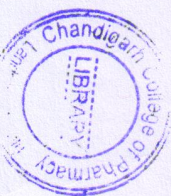
SECTION - B

2. Describe the classes of advertisements exempted conditionally under the Drugs and Magic Remedies Act.
3. Write in detail about the constitution and functions of the state and joint state pharmacy council.
4. What is the significance of DPCO? How the prices of category 1 and category 2 formulations are revisesd?
5. Give a brief account of labeling of patent and proprietary medicines.
6. What is the purpose of code of ethics? How it helps the profession?
7. Discuss national fund for controlling the drug abuse.
8. Discuss in brief the manufacturing of Ayurvedic and Homeopathic Preparations.
9. Write a brief note on Pharmaceutical legislations.

SECTION - C

10. Define Patent. Write the provisions for getting the patent rights under Patent Act 1970.
11. State the purpose of the enactment and explain its provisions relating to "Experimentation on Animals."
12. Describe the constitution of PCI. What are the education regulations and how are they implemented by PCI?

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SECTION - B

Pharm.D (Sem.-3)
PHARMACEUTICAL ANALYSIS

Subject Code : PD-302T-19

M.Code : 92166

Date of Examination : 04-06-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION A contains SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contains EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contains THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Answer the following :
 - a) What do you understand by total quality management?
 - b) Give the principle of separation in paper chromatography.
 - c) Write any four applications of thin layer chromatography.
 - d) What is electric potential?
 - e) What is bathochromic shift?
 - f) What is the principle of atomic absorption spectroscopy?
 - g) What are stretching and bending vibrations?

SECTION - C

2. Discuss the major aspects of ISO 9000.
3. Write a note on the principle and technique of column chromatography.
4. Discuss the methodology and applications of gel electrophoresis.
5. Explain the various detectors used in UV-visible spectroscopy.
6. Give the principle and instrumentation of conductometric titrations.
7. Discuss the various reference electrodes being used in potentiometry.
8. What are fluorescent indicators? Explain pharmaceutical applications of fluorimetry.
9. Write a note on mass spectrometry.



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Total No. of Questions : 12

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Pharm.D (Sem.-3)
PHARMACOLOGY-II
Subject Code : PD301T-19
M.Code : 92165

Date of Examination : 31-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

- SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
- SECTION-B contain EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
- SECTION-C contain THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION-A

1. Write briefly :

- Why iron is given in combination with vitamin C?
- What is grey baby syndrome?
- What is the composition of co-trimoxazole?
- Give examples of anti-amoebic drugs.
- What is the use of clopidogrel?
- Give examples of third generation cephalosporins.
- What is the use of zidovudine?

SECTION-B

- Write a note on the carbonic anhydrase inhibitors.
- Discuss the MOA, side effects and uses of streptomycin.
- Write a brief note on acute and chronic toxicity.
- Mention the standard drug regimen for TB.
- Describe the principle, procedure and applications of biosensors.
- Discuss briefly about the PI3-kinase signal transduction pathway.
- Classify cephalosporins.
- Discuss briefly about cell cycle regulators and modifiers.

SECTION - C

- Classify anti-cancer drugs. Describe the complete pharmacology of methotrexate.
- Explain the principle, procedure and applications of DNA recombinant technology.
- Write the MOA, side effects and uses of following:
 - Amoxycillin
 - Heparin

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June - 2025

Roll No.

Total No. of Pages : 02

Total No. of Questions : 12

Pharm.D. (Sem.-3)
PHARMACEUTICAL FORMULATIONS

Subject Code : PD306T-19

M. Code : 92170

Date of Examination : 27-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY Consisting of SEVEN Questions Carrying TWO Marks Each. Attempt Any Five.
2. SECTION-B Consisting of EIGHT Questions Carrying FIVE Marks Each. Attempt Any SIX.
3. SECTION-C Consisting of THREE Questions carrying FIFTEEN marks each. Attempt Any Two.

SECTION-A

1. Answer briefly :

- a) Define tablet coating.
- b) Mention the various coating polymers.
- c) Discuss the various components of ointment.
- d) What are parenteral why this route is most preferred?
- e) Enlist the various type of packaging materials.
- f) How stability of formulations accessed?
- g) Define ocular formulations.

SECTION-B

2. What do you mean by quality control test for tablets?
3. Explain how stability of liquid orals performed.
4. Differentiate the LVP and SVP.
5. Write a note on buccal delivery systems.
6. Explain the formulation of suppositories.
7. Discuss the various raw materials used for capsules.
8. What do you mean by techniques for granulation with concern to tablets?
9. Discuss the various liquid-orals.

SECTION-C

10. Discuss in detail about production and filling of soft gelatin with diagram.
11. Write a note on ophthalmic preparations with their evaluations and features.
12. Give a detailed comment on novel drug delivery systems and their importance in pharmaceutical industry.

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Total No. of Pages : 02

Total No. of Questions : 12

Pharm.D. (Sem.-4)
CLINICAL TOXICOLOGY
Subject Code : PD406T-19

M. Code : 93765

Time : 3 Hrs.

Date of Examination : 19-05-2025

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is contain SEVEN questions and attempt any FIVE questions, each question carries TWO marks.
2. SECTION-B contain EIGHT questions, answer any SIX questions, each question carries FIVE marks.
3. SECTION-C contains THREE questions, answer any TWO questions, each question carries FIFTEEN marks each.

SECTION - A

1. Write a short notes on :

- a) Define toxidrome and give an example.
- b) Explain the mechanism of action of atropine as an antidote.
- c) Discuss the role of activated charcoal in gut decontamination.
- d) Differentiate between haemodialysis and hemoperfusion as elimination enhancement techniques.
- e) Define half-life in the context of toxicokinetic.
- f) Mention two clinical symptoms of benzodiazepine overdose.
- g) Name two heavy metals associated with chronic renal toxicity.

SECTION - B

2. Discuss in detail the clinical symptoms and treatments of acute poisoning with salicylate.
3. Describe the toxic effects of methanol poisoning and outline the management strategies.

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4. Compare and contrast the clinical symptoms of poisoning with organophosphates and carbamates.
5. Discuss the clinical features and management of acute poisoning with CNS stimulants.
6. Explain the clinical manifestations and treatment options for chronic arsenic poisoning.
7. Describe the clinical effects of spider venom bites and outline the first aid management.
8. Discuss the common mushrooms involved in poisoning and their toxic effects.
9. Brief down the methods of gut decontamination.

SECTION - C

10. Discuss the signs and symptoms of opioid dependence and outline the pharmacological treatment options.
11. Describe the clinical manifestations of cyanide poisoning and outline the emergency management approach.
12. Discuss the role of microbial pathogens in food poisoning outbreaks and explain the general management.

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Total No. of Deaths = 00

Total No. of Questions : 12

Pharm.D. (Post Baccalaureate) (Sem.-4)
PHARMACOTHERAPEUTICS-III

Subject Code : PD401T19

M.Code : 78147

Date of Examination : 20-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contains SEVEN questions carrying TWO marks each. Attempt any FIVE.
2. SECTION-B contains EIGHT questions carrying FIVE marks each and students have to attempt any SIX questions.
3. SECTION-C will comprise of THREE attempts any TWO questions. Each question carries FIFTEEN marks.

SECTION-A

1. **Write briefly:**

- a. What is Zollinger-Elison syndrome?
- b. Write the treatment of VTE in paediatric patients.
- c. What is EBM? Mention the modalities of EBM.
- d. Mention the role of dopamine in affective disorders.
- e. List out the laboratory test in diagnosing AD.
- f. Classify HIS diagnostic criteria for migraine.
- g. Enlist the complications of IBD and define any one.

SECTION - B

2. List drug induced blood disorders (Any 5) and explain the pharmacotherapy of any one.
3. Explain trigeminal neuralgia and its management.

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4. Discuss about etiopathogenesis, clinical manifestations and pharmacotherapy of ALD.
5. Write the pathogenesis and the clinical management of Parkinson's disease.
6. Explain the cascade of cerebral ischemia and the risk factors in ischemic stroke.
7. Discuss on circadian rhythm disorders and its management.
8. Explain etiopathogenesis and management of Depression.
9. Explain clinical presentation and pharmacotherapy of OCD.

SECTION - C

10. With a short note on pathophysiology and clinical presentation and explain the management of cluster headache.
11. What is peptic ulcer? Explain etiology, pathogenesis, signs and symptoms, lab tests and pharmacotherapy of PUD.
12. Abulate and discuss on the treatment algorithm and write the first line drugs for the different types of epilepsy.

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Total No. of Pages : 02

Pharm.D. (Sem.-04)

PHARMACOTHERAPEUTICS-III

Subject Code : PD401T-19

M.Code : 93760

Date of Examination : 22-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION A contains SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contains EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contains THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Write briefly:

- What are the common symptoms of peptic ulcer disease?
- Define inflammatory bowel disease and mention its types.
- List two liver disorders commonly associated with alcohol consumption.
- What is the primary treatment for anaemia caused by iron deficiency?
- Mention two common medications used to manage epilepsy.
- Define Parkinsonism and enlist symptoms associated with it.
- Name two classes of drugs used to manage gastroesophageal reflux disease.

SECTION - B

2. Discuss etiology, clinical manifestations and treatment of bipolar disorder.

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SECTION - C

3. Write pathophysiology and treatment of Alzheimer's disease.
4. Discuss in brief the etiopathogenesis of various types of jaundice.
5. Differentiate between clinical presentations of types of IBD.
6. Explain pain perception and transmission mechanisms briefly.
7. Describe drug-induced blood disorders, mechanisms, and management strategies.
8. Discuss the pharmacological treatment of Migraine.
9. What are the factors to be considered for management of seizure disorder during pregnancy?



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Roll No.

Total No. of Pages : 03

Total No. of Questions : 12

Pharm.D. (Sem.-4)
BIOSTATISTICS AND RESEARCH METHODOLOGY

Subject Code : PD404T-19

M.code : 93763

Date of Examination : 26-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

- SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
- SECTION-B contains EIGHT questions. Attempt any SIX questions. Each question will carry FIVE marks.
- SECTION-C contains THREE questions. Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

- Write a short notes on :

- Define confidence interval.
- Define prevalence.
- Define ledger system.
- Calculate the standard deviation for given data : 7, 5, 8, 4 and 6.
- Define median and variance.
- Define power of study.
- Define inventory control.

SECTION - B

- In a correlation study the following values are obtained :

	X	Y
Mean	55	57
Standard Deviation	2.5	3.5
Coefficient of Correlation	0.8	

- Obtain the two regression equations that are associated with above values.
- Write a short note on semilogarithmic plots and pie-charts.
- What do you mean by management report, explain briefly.
- Define retrieval and briefly describe the uses of computerized retrieval.
- Calculate Median and Mode for the following Data :

Class Interval	0-5	5-10	10-15	15-20	20-25
Frequency	7	8	12	9	4

- Give an account of chi-square test.
- Explain in brief the uses of computer for pharmaceutical care in the community pharmacy.
- Discuss the techniques in report writing.

SECTION - C

- Write a note on relative risk.
- Perform the two-way ANOVA on the data given below :



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Total No. of Pages : 02

Total No. of Questions : 12

Pharm.D. (Post Baccalaureate) (Sem.-4)
BIOPHARMACEUTICS AND PHARMACOKINETICS

Subject Code : PD405T19

M.Code : 78151

Date of Examination : 27-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contain EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contain THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Write briefly :

- a) What is meant by minimum effective concentration, maximum toxic concentration and therapeutic window with respect to blood drug concentration? Illustrate with the help of a plasma-drug level curve.
- b) What is meant by first pass effect?
- c) Differentiate between relative and absolute bioavailability?
- d) What are the advantages of IV infusion drug administration?
- e) Write the equation for determining elimination half-life of a drug from slope of elimination linear phase.
- f) What are renal clearance and its units?
- g) What are pinocytosis and its importance?

SECTION - B

2. Write briefly about the pharmaceutical factors influencing drug absorption.
3. Comment on factors affecting renal clearance of drugs.
4. Briefly explain the calculation of elimination rate constant for drug administered through IV bolus injection and following one compartment model.
5. What is a physiological pharmacokinetic model? Mention the advantages of this model.
6. Explain MRT, MAT and MDT.
7. Write a short note on the methods employed for enhancing the oral absorption of drugs.
8. Discuss the reasons for non-linear pharmacokinetic behaviour of drugs.
9. Mention the key features of a bioavailability protocol.

SECTION - C

10. What is bioequivalence? Discuss the requirements and protocol for conducting these trials in India.
11. Enumerate the factors influencing drug elimination? Discuss them briefly.
12. Explain the pharmacokinetics of drug after IV bolus infusion following one compartment model.

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Total No. of Pages : 02

Total No. of Questions : 12

Pharm. D. (Sem.-4)

HOSPITAL PHARMACY

Subject Code : PD402T-19

M.Code : 93761

Date of Examination : 29-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of SEVEN questions carrying TWO marks each. Students have to attempt any FIVE questions.
2. SECTION-B contains EIGHT questions carrying FIVE marks each and students have to attempt any SIX questions.
3. SECTION-C contains THREE questions carrying FIFTEEN marks each and students have to attempt any TWO questions.

SECTION - A

1. Write briefly :

- a) Define Hospital pharmacy.
- b) Define Inventory control and list various methods of inventory control.
- c) Explain the Role of Pharmacist in Central sterile supply services.
- d) Define Total Parenteral Nutrition.
- e) Write short notes on sterile formulations - Small volume.
- f) Define Budget.
- g) Write a short note on Unit Dose Drug Distribution Method.

SECTION - B

2. Discuss the roles and responsibilities of Hospital Pharmacist.
3. Explain Manufacturing of Tablets.
- 1 | M-93761

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4. Explain the drug distribution in the hospital.

5. Define PTC and give its composition.

6. Explain the distribution of Narcotics and other controlled substances.

7. Explain Handling of Radiopharmaceuticals.

8. What is research and ethics committee?

9. Write about EOQ and ABC method of inventory control.

SECTION - C

10. Write the composition of infection control committee and explain the function of each member.

11. Write the organization and major functions of hospitals.

12. Explain Professional relations and practices of hospital pharmacist.

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Roll No.

Total No. of Pages : 02

Total No. of Questions : 12

Pharm.D. (Post Baccalaureate) (Sem.-4)
PHARMACOTHERAPEUTICS - I & II

Subject Code : PD407T19

M.Code : 78153

Time : 3 Hrs.

Date of Examination : 31-05-2025

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contains EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contains THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Write briefly :

- a) Differentiate between stable and unstable angina.
- b) Name a bronchodilator commonly used in the treatment of asthma.
- c) How does hormone replacement therapy benefit menopausal women?
- d) What are the general prescribing guidelines for pediatric patients?
- e) Name two types of glaucoma.
- f) What is the first-line treatment for meningitis?
- g) What is SLE?

SECTION - B

2. Explain the mechanisms and classes of drugs used to manage hyperlipidemias.
3. Differentiate between Chronic Obstructive Pulmonary Disease (COPD) and asthma.
4. Discuss the key guidelines for the rational use of antibiotics in tuberculosis.
5. What are the common drug-induced pulmonary diseases and their mechanisms?
6. Describe the hemodynamic changes in congestive cardiac failure.
7. Evaluate the risks and benefits of hormone replacement therapy.
8. Discuss the principles of surgical prophylaxis in endocarditis.
9. Discuss the pharmacological approaches to manage osteoporosis.

SECTION - C

10. Describe the basic principles of cancer therapy and the role of chemotherapy in breast cancer.
11. Discuss cido-pathophysiology of HIV along with pharmacological and non-pharmacological management.
12. Explain the principles of renal replacement therapy in the context of acute and chronic renal failure.

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Total No. of Pages : 02

Total No. of Questions : 12

Pharm.D. (Sem.-4)

BIOPHARMACEUTICS & PHARMACOKINETICS

Subject Code : PD405T-19

M.Code : 93764

Date of Examination : 03-06-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION A contains SEVEN questions and attempt any FIVE questions, each question carries TWO marks.
2. SECTION-B contains EIGHT questions, answer any SIX questions, each question carries FIVE marks.
3. SECTION-C contains THREE questions, answer any TWO questions, each question carries TEN marks each.

SECTION - A

1. Write a short notes on :
 - a) Define pharmacokinetics and pharmacodynamics. *
 - b) Explain the concept of drug metabolism.
 - c) List and briefly explain the factors affecting drug absorption.
 - d) Describe the different routes of drug administration.
 - e) Define drug clearance and half-life.
 - f) Explain the process of drug excretion.
 - g) Describe the Michaelis-Menten kinetics in enzyme kinetics.

SECTION - B

2. Discuss the concept of compartmental modeling in pharmacokinetics.
3. Explain the factors influencing drug distribution in the body.

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4. Describe the two-compartment model in pharmacokinetics.
 5. Discuss the application of the Michaelis-Menten method in pharmacokinetic parameter estimation.
 6. Explain the process of drug absorption from the gastrointestinal tract.
 7. Describe the one-compartment open model in pharmacokinetics.
 8. Discuss the principles of bioequivalence studies.
 9. Explain the significance of multiple dosing regimens in pharmacokinetics.
- SECTION - C**
10. Discuss the various methods for assessing bioavailability of drugs.
 11. Explain the concept of non-linear pharmacokinetics and provide examples.
 12. Describe the role of protein binding in drug distribution and elimination.

SECTION - C

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Total No. of Pages : 02

Total No. of Questions : 12

Pharm.D. (Post Baccalaureate) (Sem.-4)

HOSPITAL PHARMACY

Subject Code : PD402T19

M. Code : 78148

Date of Examination : 03-06-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contains SEVEN questions carrying TWO marks each and students have to attempt any FIVE questions.
2. SECTION-B contains EIGHT questions carrying FIVE marks each and students have to attempt any SIX questions.
3. SECTION-C contains THREE questions carrying FIFTEEN marks each and students have to attempt any TWO questions.

SECTION - A

1. Write a short notes on :

- a) Define and enlist various sections of a hospital formulary.
- b) Define and enlist components of total parenteral nutrition.
- c) Define Inventory and enlist the various inventory control techniques.
- d) Define and enlist functions of hospital infection control committee.
- e) Enlist the responsibilities of a hospital pharmacist.
- f) Define and classify hospital.
- g) Enlist the advantages of various drug distribution methods.

SECTION - B

2. Describe the various in-patient and out-patient drug distribution methods.
3. Describe the role of pharmacist in education and training program.
4. Describe ABC and VED techniques of inventory control.
5. Describe the method for manufacturing of total parenteral nutrition.
6. Describe organization, lay out and function of hospitals pharmacy.
7. Describe hospital budget preparation and implementation process.
8. Describe the composition and functions of research ethics committee.
9. Describe the storage and handling of Class-II and III radiopharmaceuticals.

SECTION - C

10. Describe the composition, functions and policies of pharmacy and therapeutic committee.
11. Draw a neat hospital organization chart and describe the various departments and their functions.
12. Describe the various purchase techniques and process of procurement of drugs and pharmaceuticals.

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Roll No.

Total No. of Pages : 02

Total No. of Questions : 12

**Pharma.D (Post Baccalaureate) (Sem.-4)
BIOSTATISTICS AND RESEARCH METHODOLOGY**

Subject Code : PD404T-19

M.Code : 78150

Date of Examination : 04-06-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

- SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
- SECTION-B contains EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
- SECTION-C contains THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

- Write briefly :
 - Define Power of study.
 - Calculate the range for the given data
27, 15, 21, 2, 5, 9, 23, 31 and 35.
 - Define Null Hypothesis.
 - What do you mean by retrieval? Give its importance.
 - Write any two assumptions for any one parametric test.
 - Define database with example.
 - Define Management report.

SECTION - B

- Give an account of Sample size determination.
- Calculate Mean, Median and Mode for the following Data :

Class Interval	0-10	10-20	20-30	30-40	40-50
Frequency	3	7	6	10	2

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- Discuss in brief the use of various graphs in biostatistics.
- Give the salient features for use of computers for pharmaceutical care in community pharmacy.
- Obtain the rank correlation coefficient between the given variables X and Y from the following pairs of observed values :

X:	110	110	115	125	140	115	130	120	115	160
Y:	50	55	60	50	55	60	50	65	70	75

- Write a short note on inventory control.
- Define retrieval. Describe in brief advantages of computerized literature retrieval.
- What do you mean by relative risk and attributable risk? Explain any one.

SECTION - C

- Define confidence interval, level of significance and SEM.
 - Perform the two-way ANOVA on the data given below :

Plots of Land	Treatment			
	A	B	C	D
I	40	38	42	42
II	38	40	41	39
III	45	42	49	36

For (3,6) d. f. $F(0.05) = 4.76$ and for (2,6) d. f. $F(0.05) = 5.14$

- Describe in detail about any one non-parametric test in detail.
 - Obtain the regression equations for the given data :
- Discuss in detail about computer application in pharmacy.
 - Write a note on report writing.

X:	6	2	10	4	8
Y:	9	11	5	8	7

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Total No. of Pages : 02

Total No. of Questions : 12

Pharm.D (Post Baccalaureate) (Sem.-4)

CLINICAL TOXICOLOGY

M.Code : 78152

Date of Examination : 14-06-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contains EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contains THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Write briefly :
 - a) Explain briefly mycotoxin poisoning.
 - b) Define Toxicokinetics.
 - c) What is Gut decontamination?
 - d) Define Antidotes.
 - e) Describe families of venomous snakes.
 - f) What is the treatment of Tobacco dependence?
 - g) What are CNS stimulant and CNS depressant?

SECTION - B

2. Describe the signs and symptoms of acute organo-phosphorus poisoning.
3. Explain the role of antidotes and its clinical applications.

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4. Discuss the envenomation in arthropod poisoning.
 5. Describe the signs and symptoms, diagnosis and treatment of food poisoning.
 6. State the symptoms and treatment involved in Paracetamol and salicylate poisoning.
 7. What are the signs and symptoms of chronic poisoning with iron and its management?
 8. Write a note on signs and symptoms of Amphetamine abuse.
 9. Enumerate signs, symptoms and management of acute overdose of opiates.
- SECTION - C**
10. Explain clinical effects and management of Antidepressants poisoning.
 11. Discuss general principles involved in poison management and treatment.
 12. Explain the various stages, signs, symptoms and management for acute radiation poisoning.

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Total No. of Pages : 02

Total No. of Questions : 12

Pharm.D. (Post Baccalaureate) (Sem.-4)

CLINICAL PHARMACY

Subject Code : PD403T19

M.Code : 78149

Date of Examination : 06-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contain EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contain THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Write briefly :

- a) Define Patient counseling.
- b) Enlist primary and secondary sources of drug information.
- c) Define therapeutic drug monitoring.
- d) Define medication chart review and clinical review.
- e) Define Type-A and Type-B ADR.
- f) Define and enlist techniques of pharmaceutical care.
- g) Define communication skills. Enlist various barriers of effective communication.

SECTION - B

2. Describe the SOAP and FARM techniques of pharmaceutical care.
3. Describe the stepwise approach of critically evaluating biomedical literature.
4. Describe briefly about the various pulmonary function tests for diagnosis of Asthma.
5. Describe briefly about the concept and scope of Pharmacovigilance.
6. Describe the stepwise approach of drug utilization evaluation program.
7. Describe the common medical abbreviation and terminologies in Cardiac Care setting.
8. Describe the need, objectives and methods of providing Pharmacist intervention.
9. Describe the functions of drug and poison information Centre.

SECTION - C

10. Describe the stepwise process and content of patient medication history interview.
11. Describe in detail about the various renal function tests for diagnosis of acute renal failure.
12. Define, classify and describe about the various causes and methods of prevention of medication errors.

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Total No. of Pages : 02

Pharm.D. (Sem.-4)

CLINICAL PHARMACY

M. code : 93762

Date of Examination : 05-05-2025

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contains SEVEN questions carrying TWO marks each and students have to attempt any FIVE questions.
2. SECTION-B contains EIGHT questions carrying FIVE marks each and students have to attempt any SIX questions.
3. SECTION-C contains THREE questions carrying FIFTEEN marks each and students have to attempt any TWO questions.

SECTION - A

1. Write a short notes on :

- a) Role of clinical pharmacy and scope within the healthcare system.
- b) Explain the role of a clinical pharmacist in drug therapy monitoring.
- c) Describe the process and significance of participating in ward rounds as a clinical pharmacist.
- d) Discuss the management of Adverse Drug Reactions (ADRs).
- e) Explain the importance and methods of providing drug information and poison information services in clinical pharmacy.
- f) Discuss the role and significance of taking a detailed medication history in clinical pharmacy practice.
- g) Describe the process and importance of patient counseling in enhancing therapeutic outcomes.

SECTION - B

2. Analyze a patient's case history and discuss how it is structured and used in evaluating drug therapy?
3. Explain the interpretation of hematological tests in the evaluation of disease states and their relevance in clinical decision-making.
4. Discuss the significance and interpretation of liver function tests in diagnosing and monitoring liver diseases.
5. Describe the importance and clinical interpretation of renal function tests in assessing kidney health.
6. Explain the role and interpretation of thyroid function tests in diagnosing and managing thyroid disorders.
7. Discuss the various tests associated with cardiac disorders.
8. Explain the concept of fluid and electrolyte balance and its significance in maintaining homeostasis in the body.
9. Describe microbiological tests, including culture and sensitivity tests and their role in diagnosing infections.

SECTION - C

10. Discuss the interpretation and clinical significance of pulmonary function tests in the evaluation of respiratory diseases.
11. Explain the organization and use of poison information resources, including the preparation of written and verbal reports in drug and poison information services.
12. Discuss the activities of clinical pharmacist in a multispecialty hospital.

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Roll No.
Total No. of Questions : 12

Total No. of Pages : 02

Pharm. D (Post Baccalaureate) (Sem.-5)
CLINICAL RESEARCH
Subject Code : PD501T-19
M.Code : 90289
Date of Examination : 06-05-2025

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contains SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
2. SECTION-B contains EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
3. SECTION-C contains THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION - A

1. Answer briefly :

- a. What is micro-dosing phase?
- b. Define mutagenicity and carcinogenicity.
- c. Write ACT classification of drug with an example.
- d. Define clinical research. Mention declaration of Helsinki.
- e. What is LD₅₀ and ED₅₀?
- f. Define drug development process and pharmacovigilance.
- g. What is the role of auditors in the clinical research?

SECTION - B

2. Discuss about pharmacological and toxicological approaches to drug discovery.
3. Describe the various phases of clinical trials.

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4. Write the composition, responsibilities and procedure of IRB/IEB.
5. Discuss the process of IND and ANDA.
6. Explain informed consent process.
7. Highlight role and responsibilities of sponsor and investigators.
8. Mention the challenges in the implementation of guidelines?
9. Write a note on ethical guidelines in the clinical research.
10. Explain the detailed account on Good Clinical Practice.
11. Write about the designing of clinical study documents such as protocol, CRF, ICF, PIC.
12. Write a short note on :
 - a. Data management and its components.
 - b. Safety monitoring in clinical trials.

SECTION - C

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Total No. of Questions : 12

DRUG MONITORING

Subject Code : PD503T-19

M.Code : 90291

Date of Examination : 23-05-2025

Max. Marks : 70

Time : 3 Hrs.

INSTRUCTIONS TO CANDIDATES:

- INSTRUCTIONS TO CANDIDATES :**
1. SECTION-A contain SEVEN questions. Attempt any FIVE questions. Each question will carry TWO marks each.
 2. SECTION-B contain EIGHT questions (Short Essay Type). Attempt any SIX questions. Each question will carry FIVE marks.
 3. SECTION-C contain THREE questions (Long Essay Type). Attempt any TWO questions. Each question will carry FIFTEEN marks.

SECTION-A

1. Answer on the following questions:

- Enlist the example of drugs that are affected by genetic polymorphism in terms of drug metabolism.
- What is dosing-with feedback? Mention its significance.
- What is Bayesian Theory?
- What are the merits and demerits of using nomogram in dosage regimen designing?
- Define organ extraction ratio.
- Write difference between compartmental and non-compartmental model.
- The maintenance dose of atorvastatin is 10 mg daily for a patient with normal renal function. Calculate the maintenance dose for a uremic patient with creatinine clearance of 30 mL/min. Assume a normal creatinine clearance of 100 mL/min.

SECTION - B

1. Discuss the key principles involved in Therapeutic Drug Monitoring (TDM) of cyclosporine.
2. Explain the process of extracorporeal removal of drugs.
3. Write short note on pharmacokinetic drug interactions.
4. Mention the application of Bayesian theory in pharmacokinetics.
5. What do you mean by Individualization? Explain how individualization helps in calculating according to age and body weight.
6. Write a note on genetic polymorphism in drug metabolism.
7. Discuss the key principles involved in Therapeutic Drug Monitoring (TDM) of cyclosporine.
8. Describe the importance of nomograms in dosage designing.

SECTION - C

10. Write a detailed note on conversion of IV dosing to oral dosing. Explain the criteria of patient selection suitable for IV to oral Dose conversion.
11. Define TDM. Describe the objectives and process of TDM for psychiatric medications in detail.
12. Mention the effect of hepatic disorders on pharmacokinetics and describe the models used for evaluating hepatic clearance.

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