CORRECTION / NO-CORRECTION FILE

QPCODE: 421006 Dated: 10-11-2025

Questiojn No.9

Replaced with "Hinsberg synthesis of Thiophene."

Corrections/Modifications/Replacement of Questions if any shall be made available to all students. Take the print out of the Correction File in such cases and distribute to all students.

(Sd/-)

CONTROLLER OF EXAMINATIONS

QP Code: 421006 **Reg. No……..**

Fourth Semester B.Pharm Degree Regular/Supplementary Examinations November 2025
Pharmaceutical Organic Chemistry III

(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. a) Describe the mechanism and applications of Clemmensen reduction and Birch reduction.
   b) Explain methods of determination of configuration of geometrical isomers.
2. a) Compare the reactivity of Pyrrole, Furan and Thiophene with examples.
   b) Write any two methods of preparation and reactions of Thiazole and Pyrazole.

Short Notes **(7x5=35)**

3. Define Enantiomers and Diastereomers and give an example.
4. Write a note on Syn- and Anti - nomenclature of geometrical isomers with examples.
5. Explain about the steroselective reactions.
6. Write any two methods of synthesis and medicinal uses of Quinoline.
7. Describe the mechanism and applications of $LiAlH_4$ reduction.
8. Write any two methods of synthesis and reactions of Indole.
9. Explain the aromaticity and basicity of Thiophene.

Answer Briefly **(10x2=20)**

10. Draw the conformational isomers of n-Butane.
11. Define meso compounds with example.
12. Draw the structures of 2-Phenyl imidazole and trans-2-butene.
13. Write any two reactions of Pyrrole.
14. Write the structure and medicinal uses of Acridine.
15. What is Schmidt rearrangement.
16. Explain the basicity of Pyridine.
17. Define Axis of Symmetry with one example.
18. Draw the structures of 7-Methoxy isoquinoline and 2-Phenyl indole.
19. Write the structure and medicinal uses of Pyrimidine.

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QP Code: 422006 **Reg. No……**

Fourth Semester B.Pharm Degree Regular/Supplementary Examinations November 2025
Medicinal Chemistry - 1

(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Discuss the chemistry of cholinergic blocking agents and synthesis of Dicyclomine.
2. Explain about the Phase II reactions with examples

Short Notes **(7x5=35)**

3. Classify NSAIDs and outline the synthesis of ibuprofen.
4. Write the synthesis and mechanism of action of Mefenamic acid.
5. Give a note on partition coefficient in drug action.
6. Phase – I bio-transformation reaction with examples.
7. Synthesis of any one sympathomimetic agent.
8. SAR of β-adrenergic blockers.
9. List out the five structures of cholinesterase blocking agents.

Answer Briefly **(10x2=20)**

10. Explain the relation of hydrogen bonding with biological activity
11. Explain the relation of protein binding with biological activity
12. Chemical structure and uses of ephedrine
13. Chemical structures of clonidine and epinephrine
14. Chemical structure and uses of Haloperidol
15. Synthesis of chlorpromazine hydrochloride
16. Categorize anticonvulsants
17. Chemical structure and uses of phenytoin and carbamazepine
18. Outline the synthesis of halothane
19. Chemical structure and uses of any one ultra-short acting barbiturate

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QP Code: 423006 **Reg. No……**

Fourth Semester B.Pharm Degree Regular/Supplementary Examinations November 2025
Physical Pharmaceutics II

(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Explain any two methods of determination of surface tension
2. Discuss non-Newtonian systems with suitable graphs

Short Notes **(7x5=35)**

3. Write a note on dialysis for purification of colloids
4. Differentiate flocculated and deflocculated suspension
5. Discuss various measures to protect a drug from oxidation
6. Write a note on spreading co-efficient
7. Explain thixotropy
8. Draw and explain Ostwald's viscometer
9. Classify emulsifying agents with examples

Answer Briefly **(10x2=20)**

10. Stress and strain
11. What is peptization
12. Gold number
13. Define contact angle
14. What is shelf life
15. What is Brownian movement
16. Define zero order reaction
17. What is surface free energy
18. Differentiate order and molecularity of reaction
19. What is micro emulsion

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QP Code: 424006 **Reg. No……..**

Fourth Semester B.Pharm Degree Regular/Supplementary Examinations November 2025
Pharmacology I

(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Discuss the various drug transport mechanism across the cell membrane with diagram.
2. Classify anti-epileptic drugs. Explain the mechanism, pharmacological actions, side effects and uses of phenytoin.

Short Notes **(7x5=35)**

3. Brief about the drugs used for myasthenia gravis.
4. Classify adverse drug reactions with examples.
5. Various routes of drug excretion.
6. Define Chrono pharmacology and write its significance.
7. Describe the importance of various neuro transmitters involved in the CNS neurohumoral transmission.
8. Mechanism of action, uses and side effects of disulfiram.
9. Write about the symptoms and management of barbiturate poisoning.

Answer Briefly **(10x2=20)**

10. Demerits of oral route of drug administration.
11. Define tachyphylaxis.
12. Symptoms of organophosphate poisoning.
13. Mechanism of action of lidocaine.
14. Importance of pharmacovigilance.
15. Examples of neuromuscular blockers.
16. Name any two drugs used for Alzheimer's disease.
17. Difference between local anaesthetics and general anaesthetics.
18. Define drug abuse and drug addiction.
19. Uses of diazepam.

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