QP Code: 421006 **Reg. No…….**

Fourth Semester B.Pharm Degree Regular/Supplementary Examinations June 2022
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. Explain racemic modification and resolution of racemic mixture with suitable example.
2. Discuss the reaction, mechanism and applications of Oppenauer oxidation and Wolff Kishner reduction.

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

3. Explain conformational isomerism in Ethane.
4. Give two methods for synthesis of Oxazole and pyrrole.
5. Describe the electrophilc substitution reactions of Isoquinoline and acridine.
6. Explain stereoisomerism in biphenyl compounds.
7. Explain Diastereoisomerism
8. Give any two methods of synthesis and medicinal uses of quinoline and pyridine.
9. Explain metal hydride reduction reactions and their synthetic importance.

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

10. Explain any one method of synthesis of Thiazole.
11. Optical activity.
12. What are meso compounds.
13. Explain the synthetic applications of Claisen – Schmidt condensation.
14. Explain the chemical structure of purine and pyrimidine.
15. Achiral molecule.
16. Sequence rule.
17. Cis–trans isomers.
18. Explain the any one method of synthesis of Furan.
19. Explain the synthetic importance of Dakin reaction.

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QP Code: 422006 **Reg. No……..**

Fourth Semester B.Pharm Degree Regular/Supplementary Examinations June 2022
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. Elaborate the phase I reactions of drug metabolism with suitable examples.
2. Classify anti-inflammatory agents. Write the synthesis and mechanism of action of mefenamic acid.

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

3. Describe about solubility and partition coefficient in relation to biological action.
4. Discuss structural activity relationship of phenothiazines with suitable examples.
5. Write the synthesis, mechanism of action and uses of tolazoline.
6. Cholinesterase inhibitors.
7. Give the synthesis of methohexital sodium and fentanyl citrate.
8. Narcotic antagonists
9. Draw structure and uses of • Terbutaline • Dicyclomine • Thioridazine • Methsuximide • Ibuprofen

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

10. Classify anticonvulsants.
11. Mention any two cholinergic agonists and their structures.
12. Classify antipsychotic drugs.
13. Give the chemical structure and uses of methadone.
14. Suggest any two Isosteric replacement for - CH_2 -.
15. Draw any two structures of inhalation anesthetics.
16. Synthesis of phenytoin.
17. Write structure and uses of clonidine.
18. Relate any four cyclo-oxygenase inhibitors.
19. Mechanism of action and uses of primidone.

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QP Code: 423006 **Reg. No…….**

Fourth Semester B. Pharm Degree Regular/Supplementary Examinations June 2022
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. Define rheology. Explain Non Newtonian type of flow with rheograms, mechanisms and suitable examples.
2. What is hydrolysis. Explain how hydrolysis causes degradation of a drug and elaborate on method to prevent it.

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

3. Explain stability problems of emulsion.
4. Describe the mechanisms of action of wetting agents.
5. Explain factors influencing settling of particles in suspension.
6. Derive an expression for rate constant of second order reaction.
7. Classify surface active agents with examples and write its applications.
8. Explain the determination of interfacial tension using DuNouy method.
9. Explain electrical properties of colloids.

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

10. Define surface tension and mention the unit.
11. Define kinematic and relative viscosity.
12. Gold number.
13. Define adsorption isotherm.
14. Factors to be considered in the preservation of emulsions.
15. Micro emulsions
16. Define shelf life
17. Define breaking of emulsion
18. Sedimentation volume
19. Define pseudo first order reaction.

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QP Code: 424006 **Reg. No…….**

Fourth Semester B.Pharm Degree Regular/Supplementary Examinations June 2022
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. Classify the drugs used in the treatment of Parkinson's disease. Discuss the pharmacology of levodopa.
2. Define acute and chronic toxicity and explain the general principles of treatment of poisoning.

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

3. List the different types of routes of administration and add a note on transdermal drug delivery system.
4. Mechanism of JAK- STAT receptor.
5. Clinical sign and management of organophosphorus poisoning.
6. Explain the pharmacological action and adverse effect of lignocaine.
7. Classify opioid analgesics and uses of morphine.
8. Clinical sign and management of barbiturate poisoning.
9. Explain the phases of general anesthetics.

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

10. Define tachyphylaxis and idiosyncrasy with examples.
11. List the various types of membrane transporter.
12. Secondary messengers.
13. Significance of biological clock.
14. Drugs used in the treatment of glaucoma.
15. Name any four drugs used as skeletal muscle relaxant.
16. Mechanism of action and adverse effect of disulfiram.
17. Pharmacological action of dopamine.
18. Define drug dependence and drug abuse.
19. Clinical symptoms of morphine poisoning.

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QP Code: 425006 **Reg. No…….**

Fourth Semester B.Pharm Degree Regular/Supplementary Examinations June 2022
Pharmacognosy and Phytochemistry 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. Explain chemical and morphological systems of classification of crude drugs with examples, their advantages and disadvantages.
2. Define adulteration. Discuss various types and methods of adulteration in crude drugs with suitable examples.

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

3. Scope of pharmacognosy.
4. Explain lycopodium spore method to determine the purity of crude drugs.
5. Classify glycosides with examples.
6. Explain the various phases of growth in plant tissue culture.
7. What are hallucinogens? Add a note on cannabis as a hallucinogen.
8. Write the source, method of collection and constituents of tragacanth.
9. Discuss marine drugs as a source of antivirals with examples.

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

10. Define pharmacognosy.
11. Mention the source, active constituents and uses of gelatin.
12. What is Stomatal Index?.
13. Methods of seed propagation.
14. Write the chemical tests for flavonoids.
15. Define glycosides.
16. Give the source, family and constituents of a plant fibre.
17. What are the usual adulterants of honey and how it is tested.
18. Define hybridization.
19. Confirmatory test for castor oil.

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