Code: BP401T

R19

B.Pharm II Year II Semester (R19) Regular & Supplementary Examinations September 2022

PHARMACEUTICAL ORGANIC CHEMISTRY – III

Time: 3 hours Max. Marks: 75

PART – A

(Compulsory Question)

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1 Answer the following: (10 X 02 = 20 Marks)

(a) Define enantiomers with examples.
(b) What are chiral molecules? Give example.
(c) Define conformational isomers.
(d) Give any four examples of biphenyl compounds.
(e) Write the structure and medicinal uses of pyrrole.
(f) Classify the heterocyclic compounds with examples.
(g) Give the structure and uses of pyrimidine.
(h) Write a note on indole.
(i) Write the application of Dakin reaction.
(j) Give an account on racemic modification.

PART – B

(Answer any two questions: 02 X 10 = 20 Marks)

2 Write the synthesis and any four reactions for imidazole.

3 Write in detail reactions of chiral molecules.

4 Write the reaction of synthetic importance for metal hydride reduction with examples.

PART – C

(Answer any seven questions: 07 X 05 = 35 Marks)

5 Write in detail sequence rules and RS system of nomenclature of optical isomers.

6 Explain in brief stereo isomerism of biphenyl compounds.

7 Write the relative aromaticity of furan.

8 Write the synthesis and reaction of oxazole.

9 Write a note basicity of pyridine. Explain in detail on enantiomerism.

10 Explain in brief stereospecific reactions.

11 Write the reaction and mechanism of oppenauer oxidation.

12 Write in detail reactions of synthetic importance of Schmidt rearrangement.

13 Write the reactions and medicinal uses of quinoline.

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Code: BP401T

R19

B.Pharm II Year II Semester (R19) Supplementary Examinations March 2022

PHARMACEUTICAL ORGANIC CHEMISTRY – III

Time: 3 hours Max. Marks: 75

PART – A

(Compulsory Question)

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1 Answer the following: (10 X 02 = 20 Marks)

(a) Define racemic modification.
(b) Differentiate enantiomers and diastereomers.
(c) What are configurational and conformational isomers?
(d) What are Cis and trans isomers? Give the nomenclature with suitable example.
(e) Any two reactions of pyrrole.
(f) Give the structure and nomenclature of pyrrole, furan and thiophene.
(g) Write the structure and numbering of heterocyclic compounds pyrimidine and purine.
(h) Give one method of synthesis of imidazole.
(i) Write the definition and reaction for clemmensen reduction.
(j) Give the uses of metal hydride.

PART – B

(Answer any two questions: 02 X 10 = 20 Marks)

2 (a) Write in detail about asymmetric synthesis.
(b) Write short notes on resolution.

3 Briefly explain about conformational isomerism in ethane.

4 Give the synthesis and reactions of furan.

PART – C

(Answer any seven questions: 07 X 05 = 35 Marks)

5 Describe the elements of symmetry.

6 Explain DL system of nomenclature with suitable examples.

7 Explain about stereo specific reaction.

8 Discuss about the reactions of thiophene.

9 Write about the aromaticity of pyrrole.

10 Write short notes on isoquinoline.

11 Write any two methods of synthesis and reactions of pyrimidine.

12 Explain about Birch reduction.

13 Write the mechanism and synthetic importance of Schmidt reaction.

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Code: BP401T

R19

B.Pharm II Year II Semester (R19) Regular Examinations September 2021

PHARMACEUTICAL ORGANIC CHEMISTRY – III

Time: 3 hours Max. Marks: 75

PART – A

(Compulsory Question)

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1 Answer the following: (10 X 02 = 20 Marks)

(a) What are enantiomers?
(b) What do you mean by centre of symmetry? Explain with an example.
(c) Draw different conformational isomers of cyclohexane and highlight the most stable conformation.
(d) Define stereo selective synthesis.
(e) Give any two reactions of Furan.
(f) Write any two methods of synthesis of thiophene.
(g) Write any two reactions of acridine.
(h) Write the structure and numbering of any two 5-membered heterocyclic compounds containing two similar hetero atoms.
(i) What is Darzen's reaction?
(j) Write the general reaction of Oppenauer oxidation.

PART – B

(Answer any two questions: 02 X 10 = 20 Marks)

2 Write the definition, reaction, mechanism and applications of Beckmann rearrangement.

3 Give the synthesis and reactions of quinoline.

4 Explain about racemic modification.

PART – C

(Answer any seven questions: 07 X 05 = 35 Marks)

5 Write a detailed note on nomenclature of geometrical isomerism.

6 Explain sequence rules by giving examples.

7 Add a note on atropisomerism.

8 Discuss methods of synthesis of pyrrole.

9 Write short notes on indole.

10 Write short notes on pyridine.

11 Write any two methods of synthesis of oxazole and thiazole.

12 Write a short note on Wolff Kishner reduction.

13 Write the general reaction and mechanism of metal hydride reduction.

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