BP 401 T

Total No. of Questions : 14] [Total No.of Pages : 01

II/IV B. PHARMACY (Regular) DEGREE EXAMINATIONS, NOVEMBER-2022

Fourth Semester

PHARMACEUTICAL ORGANIC CHEMISTRY - III - THEORY

Time : **Three Hours** Maximum : 75 Marks

SECTION - A

Answer any FIVE Questions. **5x10 = 50 M**

1. Define Racemic modification and discuss various methods of resolution of Racemic mixture.
2. Discuss the methods of determination of configuration of Geometrical isomers (Cis Trans, EZ and Syn Antisystems).
3. Write a detailed note on Asymmetric synthesis.
4. Write the classification of heterocyclic compounds and discuss the important points of Nomenclature of heterocyclic compounds.
5. Discuss the synthesis, reactions and medicinal uses of Pyrrole.
6. Give an account on the synthesis and reactions of Quinoline and Isoquinoline.
7. Write a note on
   a) Clemmensen reduction.
   b) Birch reduction.

SECTION - B

Answer any FIVE Questions. **5x5 = 25 M**

8. Write a note on RS system of nomenclature of optical isomers.
9. Give an account on stereo isomerism in biphenyl compounds.
10. Briefly describe the conformational isomerism in Ethane and Cyclohexane.
11. Write the synthesis and reactions of Furan.
12. Enumerate the synthesis of Oxazole and Thiazole.
13. Give an account on Schmidt Rearrangement.
14. Outline briefly Oppenauer - Oxidation and Dakin reaction.

Total No. of Questions : 14] [Total No.of Pages : 01

II/IV B. PHARMACY (SUPPLY) DEGREE EXAMINATIONS, FEBRUARY- 2022

Fourth Semester

PHARMACEUTICAL ORGANIC CHEMISTRY III - THEORY

Time : **Three Hours** Maximum : **75** Marks

SECTION - A

Answer any FIVE Questions. **5x10 = 50 M**

1. What is racemic modification ? How can you resolute racemic mixture ?
2. Explain in detail on stereospecific and stereoselective Reactions.
3. Give the preparation, properties and medicinal uses of Pyrrole.
4. Write the mechanism and synthetic importance of Clemensons reduction.
5. Give the synthesis, properties and medicinal uses of Imidazole.
6. Write the mechanism and synthetic importance of Claisen-Schmidt condensation reaction.
7. Add a note on
   a) Reactions of Quinoline.
   b) Aromaticity of Thiophene.

SECTION - B

Answer any FIVE Questions. **5x5 = 25 M**

8. Explain about asymmetric synthesis.
9. Discuss the conformational isomerism in Hexane.
10. Compare the structure and reactivity of Quinoline and Pyridine.
11. Add a note on Basicity of pyridine.
12. Give the Reactions and medicinal uses of Thiazole.
13. Write a short note on Absolute configuration.
14. Discuss the mechanism and synthetic applications of Beckmann rearrangement.

BP 401 T

Total No. of Questions :14] [Total No. of Pages : 01

II/IV B.PHARMACY (Supply) DEGREE EXAMINATIONS, MARCH-2021

Fourth Semester

B.PHARMACY

PHARMACEUTICAL ORGANIC CHEMISTRY-III-Theory

Time: Three Hours **Maximum marks:75**

SECTION-A

Answer any FIVE Questions **5X10=50M**

1. Write a detailed note on Asymmetric synthesis.
2. Define chirality. Discuss the elements of symmetry.
3. Explain stereospecific and stereoselective reactions.
4. Discuss the relative aromaticity and reactivity of Pyrrole, Furan and Thiophene.
5. Write the synthesis, reactions and medicinal uses of Indole.
6. Describe Wolff kishner Reduction and Dakin reaction.
7. Explain basicity of pyridine and add a note on reactions and medicinal uses of Pyridine.

SECTION-B

Answer any FIVE Questions **5X5=25M**

8. Define (a) Enantiomerism (b) Racemic modification (c) Meso compounds.
9. Explain stereoisomerism in biphenyl compounds.
10. Briefly outline the nomenclature of Geometrical isomers.
11. Write the synthesis and medicinal uses of Pyrrole.
12. Give the chemical reactions of Thiazole.
13. Describe schmidt Rearrangement.
14. Explain clemmensen reduction.

BP 401

Total No. of Questions :14] [Total No. of Pages : 02

II/IV B.PHARMACY (Regular) DEGREE EXAMINATIONS, AUG/SEP-2019

Fourth Semester

B.Pharmacy

PHARMACEUTICAL ORGANIC CHEMISTRY-III-Theory

Time: Three Hours **Maximum marks:75**

SECTION-A

Answer any FIVE Questions. **5X10=50M**

1. Define Racemic modification and explain the methods of resolution of Racemic mixture.
2. Write a detailed note on elements of symmetry.
3. Give an account on Nomenclature of Geometrical isomers and methods of determination of configuration of Geometrical isomers.
4. Discuss the synthesis, reactivity and medicinal uses of Furan.
5. Explain the general methods of synthesis of pyridine and add a note on its Basicity.
6. Write the reactions and medicinal uses of Imidazole and Thiazole.
7. Discuss (a) Clemmensen reduction
   (b) Schmidt rearrangement

SECTION-B

Answer any FIVE Questions. **5X5=25M**

8. Define Enantiomerism and diastereoisomerism with examples.
9. Write a brief outline on Asymmetric synthesis.
10. Explain conformational isomerism in cyclohexane.
11. Write a note on stereospecific reactions with an example.
12. Give any two general methods of synthesis and medicinal uses of Thiophene.

P.T.O

13. Write the structure and medicinal uses of Quinoline and Isoquinoline.

14. Give the reaction and mechanism for oppenauer-oxidation.

B.PH 401

Total No. of Questions :18] [Total No. of Pages : 02

II/IV B.PHARMACY (Supply) DEGREE EXAMINATIONS, NOV-2018

4th Semester

B.PHARMACY

PHARMACEUTICAL CHEMISTRY-III (MEDICINAL-I)

Time: Three Hours **Maximum marks:70**

SECTION-A

Answer any FOUR Questions **4X10=40M**

1. What is a receptor? Write a brief note on types of drug receptors. Explain how drugs interact with receptors?
2. Write structure, MOA, synthesis and uses of
   a) Nitrofurazone b) Ofloxacin
3. Write short notes on
   a) Acid resistant pencillins b) Aminoglycoside antibiotics
4. Classify cephalosporins with examples. Write in detail on SAR, MOA and uses of cephalosporins. Outline the synthesis of cefuroxime.
5. Write in brief on
   a) 4-aminoquinolines as antimaterials b) 2nd Line anti TB agents
6. Explain the MOA, SAR and uses following
   a) Azole antifungals b) Antiviral nucleoside antimetabolites

SECTION-B

Answer any TEN Questions **10X3=30M**

7. Write in brief on G-protein coupled receptors.
8. Write the rationale in the combination of trimethoprim and sulfamethoxazole.
9. Write short notes on viral entry inhibitors.
10. Write MOA, synthesis and uses of metronidazole.
11. Write in brief on antileprotics.
12. Outline the viral replication cycle. Identify antiviral drug targets.

P.T.O

13. Write the role of solubility of bioactivity of drug substances.
14. Write the metabolism and toxicity of 5-fluorouracil.
15. Discuss the chemistry of tetracyclin.
16. What are anti-infectives? Enlist their ideal requirements.
17. Write in brief on acid degradation of penicillin.
18. Write structure, IUPAC name and uses of INH and melphalan.

B.PH 401

Total No. of Questions :18] [Total No. of Pages : 01

II/IV B.PHARMACY DEGREE EXAMINATIONS, NOVEMBER-2017

Fourth Semester

B.PHARMACY

PHARMACEUTICAL CHEMISTRY-III(MEDICINAL-I)

Time: Three Hours **Maximum marks:70**

SECTION-A

Answer any FOUR Questions **4X10=40M**

1. Write short notes on
   a) Role of stereochemistry on drug action b) GPCR
2. Write short notes on
   a) Antiinfective agents b) Metabolism of sulpha drugs
3. Classify cephalosporins with examples. Write in detail on MOA, SAR and uses of cephalosporins. Outline the synthesis of cefuroxime.
4. Write a note on
   a) Quinine b) Albendazole
5. Classify anti fungal agents with examples. Enlist the drugs working on biosynthesis and functioning of ergosterol. Write the synthesis, MOA and uses of ketoconazole.
6. Write structure, MOA, uses and toxic reactions of
   a) Primaquine b) Chloramphenicol c) Diloxanide d) Niclosamide

SECTION-B

Answer any TEN Questions **10X3=30M**

7. Write structure, MOA and uses of metronidazole.
8. Describe the chemistry and structural features of streptomycin.
9. What are tetracyclins? Write therapeutic uses and toxicity of these drugs.
10. Write the structure of penicillin G. Explain why it is acid labile?
11. Write the synthesis, MOA and uses of norfloxacin.
12. Write in brief on second line anti TB agents.
13. Write in brief on chemistry and MOA of zidovudine.
14. Write in brief on rational behind use of multidrug therapy for cancer therapy.
15. Write synthesis and uses of amantadine.
16. Write in brief on vinca alkaloids.
17. Write SAR of alkylating agents.
18. Write in brief on NNRTIs as antiviral agents.

Y14PH0607

Total No. of Questions :18]

BPH 401

[Total No. of Pages : 01

II/IV B.PHARMACY DEGREE EXAMINATIONS, JUNE/JULY- 2016

Fourth Semester

PHARMACEUTICAL CHEMISTRY-III(MEDICINAL-I)

Time: Three Hours

Maximum marks:70

SECTION-A

Answer any FOUR questions. **4x10=40M**

All questions carries equal marks.

1. What is a receptor? Enlist various receptors involved in drug action. Write in detail on G protein Coupled Receptors.
2. Write in brief on evolution of sulfonamide antibacterials. Explain the MOA, SAR and therapeutic applications of sulfonamides.
3. Write a note on
   a. Beta-lactamase Acid resistant penicillins
   b. SAR of tetracyclins
4. Write structure, MOA, synthesis and uses of the following
   a. norfloxacin b. metronidazole c. 5-flurouracil d. mebendazole
5. Write detailed clasification of antifungal agents. Write the structure, MOA, synthesis and clinical applications of fluconazole.
6. Write in detail on
   a. HIV protease inhibitors
   b. Natural products as anticancer agents

SECTION-B

Answer any TEN questions. **10x3=30M**

7. Write briefly on role of hydrogen bonding in the drug-receptor interactions.
8. What is the rationale behind the clinical usage of sulbactam and ampicillin combination?
9. Write short note on MOA, clinical uses and toxicity profile of aminoglycoside antibiotics.
10. Compare the chemistry and biological activity profile of pencillins and cephalosporins
11. Write the structure, MOA and uses of quinine and artemisinin.
12. Write the synthesis, MOA and therapeutic applications of busulfan.
13. Classify antitubercular agents. Explain why anti TB treatment regimen includes at least three drugs?
14. With a neat drawing, explain the viral replication cycle and identify the drug targets.
15. Write the structure, MOA and clinical uses of acyclovir and amantadine.
16. Write short note on principles of chemotherapy.
17. Write the synthesis, MOA and uses of INH.
18. Write in brief on anthelmintics.