

Roll No: |

BPHARM

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(SEM IV) THEORY EXAMINATION 2021-22  
PHARMACEUTICAL ORGANIC CHEMISTRY III – THEORY

Total Marks: 75

Time: 3 Hours

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

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1. Attempt all questions in brief.

10 x 2 = 20

- Define enantiomers with examples.
- Define meso compounds with examples.
- Distinguish between E and Z isomers with examples.
- Discuss sequence rules.
- Compare the reactivity and aromaticity of pyrrole, furan and thiophene.
- What is the reduction product of furan? Give its reaction.
- Discuss the structure and pharmaceutical uses of Oxazole.
- Write the pharmaceutical uses of quinoline and isoquinoline.
- Write the synthetic importance of Birch reduction.
- Discuss the Claisen Schmidt condensation reaction.

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SECTION B

2. Attempt any two parts of the following:

2 x 10 = 20

- Outline the various conformations of cyclohexane in detail.
- Classify heterocyclic compounds. Discuss the nomenclature of heterocyclic compounds with suitable examples.
- Write down the synthesis, reactions and medicinal uses of Imidazole and Thiazole.

SECTION C

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3. Attempt any five parts of the following:

5 x 7 = 35

- Describe DL system of nomenclature of optical isomers with suitable example.
- Describe stereo isomerism in biphenyl compounds and its conditions for optical activity.
- Write down the synthesis, reactions, and medicinal uses of Pyrrole and Thiophene.
- Describe in detail about the stereospecific and stereoselective reactions with examples.
- Write down the synthesis and medicinal uses of Pyridine also discuss basicity of Pyridine.
- Discuss in detail about the synthesis and pharmaceutical uses of pyrimidine and purine.
- Discuss the reaction and mechanism of Metal hydride reduction.