



PAPER ID-421057

Subject Code: BP401T

Roll No: 2003920500001

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

Time: 3 Hours

Total Marks: 75

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

SECTION A

1. Attempt all questions in brief.

10 x 2 = 20

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

SECTION B

2. Attempt any two parts of the following:

2 x 10 = 20

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

SECTION C

3. Attempt any five parts of the following:

5 x 7 = 35

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

Handwritten marks: 3, 2, 3, 8