

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 4 EXAMINATION – SUMMER -2019

Subject Code: BP401TT**Date: 06-05-2019****Subject Name: Pharmaceutical Organic Chemistry III****Time: 10:30 AM TO 01:30 PM****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Define plane polarized light and discuss optical activity in detail. **06**
(b) Differentiate enantiomers and diastereomers, discuss mesomers. **05**
(c) Explain nomenclature of optical isomers. **05**
- Q.2** (a) Differentiate stereoselective and stereospecific reactions. **06**
(b) Give short notes on nomenclature of geometrical isomers. **05**
(c) Discuss the sequence rule in detail to assign configuration. **05**
- Q.3** (a) Discuss stability of various conformations of cyclohexane. **06**
(b) Discuss stability of various conformations of n-butane. **05**
(c) Explain stereoisomerism in biphenyl compounds. **05**
- Q.4** (a) Discuss basicity of pyridine. **06**
(b) Draw the structures of imidazole, pyrazole, oxazole, thiazole and pyrrole. **05**
(c) Discuss nomenclature and classification of thiophene and furan. **05**
- Q.5** (a) Explain any two synthesis and reactions of pyrrole. **06**
(b) Discuss medicinal categories of thiophene and furan derivatives. **05**
(c) Discuss electrophilic and chichibabin reaction of pyridine. **05**
- Q.6** (a) Explain any two synthesis and medicinal uses of imidazole. **06**
(b) Draw the structures of azepines and acridine and discuss any two reactions of them. **05**
(c) Discuss clemmensen reduction and birch reduction **05**
- Q.7** (a) Explain beckmanns rearrangement and Schmidt rearrangement. **06**
(b) Discuss wolff kishner reduction and dakin reaction. **05**
(c) Draw the structures of quinoline and isoquinoline and discuss any one synthesis of both. **05**
