

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.

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| 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 |
