Seat No.: _____ Enrolment No. _____

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**

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