Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM – SEMESTER – 4- EXAMINATION –WINTER - 2018

Subject Code: 240003 **Date: 10/12/2018**

Subject Name: Pharmaceutical Chemistry - IV

Time:02:30 PM TO 05:30 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 following 1. Optical activity 2. Chirality 3. Configuration 4. Racemic mixture 5. Geometrical isomerism 6. Tautomerism	**06**
	(b)	Write an informative note on Stereochemistry of Biphenyl.	**05**
	(c)	Discuss the Haworth synthesis for naphthalene.	**05**
Q.2	**(a)**	Discuss any three-general method of preparation and three reactions of amines.	**06**
	(b)	Discuss Grignard reagents utility in organic chemistry with specific example.	**05**
	(c)	Give any three methods of preparations of Phenols.	**05**
Q.3	**(a)**	Explain the following statements. 1. Ammonia is more basic than aniline. 2. Acetone is less reactive than Acetaldehyde 3. Chloroacetic acid is stronger than acetic acid	**06**
	(b)	Give mechanism for Kolbe reaction.	**05**
	(c)	Explain enantiomer and diastereomer with one common example.	**05**
Q.4	**(a)**	Describe preparation and synthetic utility of diazonium slats.	**06**
	(b)	Give the chemistry of anthracene	**05**
	(c)	Give mechanism for Diels alder reaction	**05**
Q.5	**(a)**	Give the method for preparation of carboxylic acid.	**06**
	(b)	Write a note on Witting reaction.	**05**
	(c)	Give mechanism for Reimer–Tiemann reaction.	**05**
Q. 6	**(a)**	How will you convert 1. Phenol to Aspirin 2. Aniline to Phenol 3. Aniline to p-Nitro Aniline	**06**
	(b)	Write a note on Microwave synthesis.	**05**
	(c)	Give any three chemical reactions of 1. Amides 2. Ketone	**05**
Q.7	**(a)**	What is Green chemistry? Discuss any four principles of it.	**06**
	(b)	Give the mechanism of Sulphonation and Chlorination of benzene.	**05**
	(c)	Give a brief discussion on acidity of carboxylic acids.	**05**

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