

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

Subject Code: 240003

Date: 15-05-2019

Subject Name: Pharmaceutical Chemistry - IV

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)	Discuss with reaction mechanism Howarth synthesis of Naphthalene	06
	(b)	How does structure effect the basicity of amines?	05
	(c)	Note on Hofmann degradation of amides.	05
Q.2	(a)	Note on (1) Biphenyls (2) Allens (3) Spirans.	06
	(b)	Explain nucleophilic addition reaction of carbonyl compounds.	05
	(c)	Explain Hybridization and resonance in benzene.	05
Q.3	(a)	Discuss the preparation of carboxylic acid.	06
	(b)	Explain Aldol and Crossed aldol condensation.	05
	(c)	Give the methods of preparation of carbonyl compounds.	05
Q.4	(a)	Explain stereoselective and stereospecific reactions.	06
	(b)	Define (1) Chirality (2) Optical activity (3) Enantionmer (4) Recemic mixture (5) Geometric isomerism.	05
	(c)	What is R and S configuration? Explain it.	05
Q.5	(a)	Give reaction mechanism of Reamer Tiemann reaction and Kolbe Schmitt reaction.	06
	(b)	Give the general methods for the preparation of aromatic amines.	05
	(c)	Explain mechanism of (i) Cannizaro reaction (ii) Perkin condensation.	05
Q. 6	(a)	Give the methods for preparation of Phenol	06
	(b)	Explain Friedel crafts reaction.	05
	(c)	Defines arenes. Give methods for preparation of arenes.	05
Q.7	(a)	Define nanochemistry. Explain its application in pharmacy.	06
	(b)	Give the principle of microwave synthesis.	05
	(c)	How helps Green chemistry to decrease pollution?	05
