Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM - SEMESTER– 4 EXAMINATION – SUMMER -2019

Subject Code: BP402TP **Date: 09-05-2019**

Subject Name: Medicinal Chemistry I

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: Chelation, Bioisosterism, Partition coefficient, Ionization, Optical isomerism, Hydrogen bonding	**06**
	(b)	Define Xenobiotics. Give importance of CYP-450 in drug metabolism.	**05**
	(c)	What are Sympathomimetics agents? Classify them with examples.	**05**
Q.2	**(a)**	Enlist different pathways of drug metabolism. Describe any two conjugation reaction in drug metabolism giving specific examples.	**06**
	(b)	Explain: Biosynthesis and catabolism of catecholamine.	**05**
	(c)	Give the synthesis and uses of following drugs: 1) Carbamazepine 2) Dicyclomine HCl	**05**
Q.3	**(a)**	Write a note on parasympatholytic agents.	**06**
	(b)	Give SAR of Benzodiazepines.	**05**
	(c)	What are antipsychotics drugs? Write SAR of phenothiazines.	**05**
Q.4	**(a)**	What are NSAIDs? Classify them with two examples of each class. Write synthesis of one NSAID having one chiral center.	**06**
	(b)	Classify General anesthetics and give synthesis of Halothane.	**05**
	(c)	Give the structures of following drugs: 1) Scopolamine Hydrobromide 4) Oxazepam 2) Paraldehyde 5) Secobarbital 3) Pentazocine	**05**
Q.5	**(a)**	Write a note on Narcotic antagonists with its mechanism.	**06**
	(b)	Explain in details: Factor affecting drug metabolism including stereo chemical aspects.	**05**
	(c)	Give the synthesis and uses of following drugs: 1) Methohexital sodium 2) Methadone HCl	**05**
Q.6	**(a)**	Define Insomnia. Explain mechanism and SAR of Barbiturates.	**06**
	(b)	Explain stages of anesthesia with classification of Inhalation anesthetics.	**05**
	(c)	Write a note on Fluro buterophenones with its mechanism.	**05**
Q.7	**(a)**	Classify anticonvulsants with its mechanism and SAR.	**06**
	(b)	Give SAR of Morphine analogues.	**05**
	(c)	Give the structures of following drugs: 1) Chlorprothixene 4) Glutethmide 2) Clonazepam 5) Carvedilol 3) Valproic acid	**05**

****