

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

Subject Code: BP402TP**Date: 17-12-2019****Subject Name: Medicinal Chemistry I****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) Discuss the role of hydrogen bonding and solubility in drug's biological action	06
	(b) Write a brief note on Bioisosterism	05
	(c) Enumerate factors affecting drug metabolism. Explain stereo-chemical aspects	05
Q.2	(a) Outline the biosynthesis of catecholamines. Give synthesis of salbutamol	06
	(b) Give a brief account on α -adrenergic blockers	05
	(c) Give structure and use of (i) Clonidine (ii) Labetalol	05
Q.3	(a) Explain (i) Metabolism of paracetamol (ii) Glucuronide conjugation	06
	(b) Write in brief about synthetic cholinergic blockers	05
	(c) Give synthesis (i) Neostigmine (ii) Dicyclomine	05
Q.4	(a) Write SAR of β -blockers. Give synthesis of Propranolol	06
	(b) Write a short note on cholinesterase inhibitors	05
	(c) Give SAR of Benzodiazepines	05
Q.5	(a) Describe SAR of parasympathomimetic agents	06
	(b) Give structure and use of (i) Alprazolam (ii) Valproic acid (iii) Clonazepam (iv) Pentazocine (v) Diclofenac	05
	(c) Classify general anesthetic agents	05
Q. 6	(a) Classify sedative and hypnotics	06
	(b) Give SAR of Morphine analogues	05
	(c) Explain with example (i) Dissociative anesthetic (ii) Cholinesterase reactivators	05
Q.7	(a) Give synthesis (i) Phenytoin (ii) Carbamazepine	06
	(b) (i) Explain with example- Narcotic antagonists (ii) Give synthesis of Tolazoline	05
	(c) Give synthesis of (i) Halothane (ii) Ibuprofen	05
