

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 **05**
(iv) Pentazocine (v) Diclofenac
(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**
