

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.

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| 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 |
