

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: **05**
- 1) Carbamazepine
- 2) Dicyclomine HCl
- 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: **05**
- 1) Scopolamine Hydrobromide 4) Oxazepam
- 2) Paraldehyde 5) Secobarbital
- 3) Pentazocine
- 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: **05**
- 1) Methohexital sodium
- 2) Methadone HCl
- 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: **05**
- 1) Chlorprothixene 4) Glutethimide
- 2) Clonazepam 5) Carvedilol
- 3) Valproic acid
