

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph. - SEMESTER-IV • EXAMINATION – SUMMER -2020

Subject Code: BP402TP**Date: 27-10-2020****Subject Name: Medicinal Chemistry I****Time: 10:30 AM TO 1:30 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) Write all possible routes for the metabolism of norepinephrine. **06**
(b) Write the biosynthesis of norepinephrine with chemical reactions. **05**
(c) Discuss the types of cholinergic receptors with their distribution. **05**
- Q.2** (a) Describe the SAR of adrenergic agonists. **06**
(b) Write a note on indirectly acting sympathomimetics. **05**
(c) Write the synthesis of salbutamol and propranolol. **05**
- Q.3** (a) Discuss in brief the development of medicinal chemistry. **06**
(b) Make an introductory note on phase I and phase II metabolism. **05**
(c) Discuss the importance of protein binding and hydrogen bonding in producing drug's biological action. **05**
- Q.4** (a) Classify the antiepileptics with one drug's structure from each class. **06**
(b) Discuss the structural modifications of 5-phenyl-1,4-benzodiazepin-2-one. **05**
(c) Write the synthesis of any two anticonvulsant drugs. **05**
- Q.5** (a) Define the word 'opioids'. Write the name and structures of narcotic antagonists. **06**
(b) Write the mechanism of action of NSAIDs. Write the synthesis of any one NSAID from aryl propionic acid class. **05**
(c) Classify the NSAIDs with one drug's structure from each class. **05**
- Q. 6** (a) Define neuroleptics. Write the mechanism of action and possible side effects of them. **06**
(b) Describe the structural modification of side chain of phenothiazines. **05**
(c) Classify the general anaesthetics with two drugs' structures from each class. **05**
- Q.7** (a) Classify the parasympathomimetics with two drugs' structures from each class. **06**
(b) Write a note on cholinesterase reactivators. **05**
(c) Write the chemical class, synthesis and use of dicyclomine hydrochloride. **05**
