

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Ph. - SEMESTER- V • EXAMINATION – SUMMER-2016

Subject Code: 2250004

Date: 06/05/2016

Subject Name: Pharmaceutical Chemistry-VI (Medicinal Chemistry-I)

Time: 2:30 PM to 5:30 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) Give name, structure and uses of any two compounds of following **06**
1. Antitussive agents
2. Antiasthmatic agents
(b) Write a note on Mucolytics and Decongestants. **05**
(c) What are diagnostic agents? Write a note on radiopharmaceuticals. **05**
- Q.2** (a) Enumerate the physicochemical properties affecting biological activity. Explain **06**
Hydrogen bonding properties in detail.
(b) Write a note on development of Medicinal Chemistry. **05**
(c) Write a note on geometric & optical isomerism. **05**
- Q.3** (a) Explain the following terms with examples **06**
1. Antacids
2. Laxatives
3. Irritable bowel syndrome
(b) Give synthesis of Ranitidine and Omeprazole. **05**
(c) What is peptic ulcer? Give brief note on H₂-antagonists. **05**
- Q.4** (a) Define Bioisosterism. How they are useful in designing new drug. **06**
(b) Write a note on Eicosanoids Approved for Human Clinical use. **05**
(c) Write note on Neuromuscular blocking agents. **05**
- Q.5** (a) Enlist various histaminic receptors. Discuss neurochemistry of histamine. **06**
(b) What are Eicosanoids ? Write in brief about Eicosanoid biosynthesis. **05**
(c) Outline synthesis of Diphenhydramine and Chlorcyclizine. **05**
- Q. 6** (a) Give the synthesis and use of Propranolol and Atenolol. **06**
(b) Write SAR of Beta-Phenylethanolamine class of Sympathomimetic agents. **05**
(c) Write a note on Ganglionic blockers. **05**
- Q.7** (a) Define and classify cholinergic agents. Explain the SAR of **06**
Parasympathomimetics.
(b) Write a note on Parasympatholytic agents. **05**
(c) Outline synthesis and uses of Diphenoxylate and Cetrizine. **05**
