

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B. Pharm. – SEMESTER – V • EXAMINATION – WINTER • 2016**

**Subject Code: 250004**

**Date: 30-11-2016**

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

**Time: 10:30 am - 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.**

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|-------------|----------------------------------------------------------------------------------------------|-----------|
| <b>Q.1</b>  | <b>(a)</b> Define and classify anti-asthmatic agents with examples.                          | <b>06</b> |
|             | <b>(b)</b> What is Bioisosterism? Classify and Explain in brief with examples                | <b>05</b> |
|             | <b>(c)</b> Discuss the SAR of H <sub>1</sub> -Antagonists.                                   | <b>05</b> |
| <b>Q.2</b>  | <b>(a)</b> What are Eicosanoids? Discuss COX pathway.                                        | <b>06</b> |
|             | <b>(b)</b> Explain hydrogen bonding in detail.                                               | <b>05</b> |
|             | <b>(c)</b> Write a note on antiemetics.                                                      | <b>05</b> |
| <b>Q.3</b>  | <b>(a)</b> Write a note on geometric & optical isomerism.                                    | <b>06</b> |
|             | <b>(b)</b> Define Medicinal chemistry and Discuss development of Medicinal chemistry.        | <b>05</b> |
|             | <b>(c)</b> Write any two reactions of pyridine and thiophene.                                | <b>05</b> |
| <b>Q.4</b>  | <b>(a)</b> Discuss biosynthesis, metabolism and stereochemistry of histamine.                | <b>06</b> |
|             | <b>(b)</b> What is antidiarrhoeal agents? Classify and explain Antidiarrheals with examples. | <b>05</b> |
|             | <b>(c)</b> Write a note on Mucolytic agents.                                                 | <b>05</b> |
| <b>Q.5</b>  | <b>(a)</b> Discuss Proton pump inhibitors. Give synthesis of omeprazole.                     | <b>06</b> |
|             | <b>(b)</b> Give any two preparation and reactions of quinoline.                              | <b>05</b> |
|             | <b>(c)</b> Discuss diagnostic agents in brief.                                               | <b>05</b> |
| <b>Q. 6</b> | <b>(a)</b> Give synthesis, mechanism and therapeutic uses of ranitidine                      | <b>06</b> |
|             | <b>(b)</b> Discuss Fisher Indole synthesis.                                                  | <b>05</b> |
|             | <b>(c)</b> Synthesis of Diphenhyramine and cetirizine.                                       | <b>05</b> |
| <b>Q.7</b>  | <b>(a)</b> Explain complexation and protein binding in detail.                               | <b>06</b> |
|             | <b>(b)</b> Write a note on nasal decongestants.                                              | <b>05</b> |
|             | <b>(c)</b> Explain Skraup's synthesis with mechanism.                                        | <b>05</b> |

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