

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

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

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**M. Pharm. - SEMESTER - II • EXAMINATION – SUMMER-2016**

**Subject Code: 2920101**

**Date: 19/05/2016**

**Subject Name: Advanced Organic Chemistry-II**

**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.**

<b>Q.1</b>	<b>(a)</b> Write the asymmetric synthesis of omeprazole	<b>06</b>
	<b>(b)</b> Write a note on piner reaction	<b>05</b>
	<b>(c)</b> Write a note on racemic switches	<b>05</b>
<b>Q.2</b>	<b>(a)</b> Define Synthons and give general rules and guidelines for disconnection.	<b>06</b>
	<b>(b)</b> Discuss in detail about synthon approach for ibuprofen and diclofenac.	<b>10</b>
<b>Q.3</b>	<b>(a)</b> Write the asymmetric synthesis of Vit. C	<b>06</b>
	<b>(b)</b> Write a note on Vilsmeier Haack reaction.	<b>05</b>
	<b>(c)</b> Write a note on conformational isomerism with suitable examples	<b>05</b>
<b>Q.4</b>	<b>(a)</b> Explain in detail principle, mechanism and application of microwave synthesis.	<b>06</b>
	<b>(b)</b> Write a note on resolution of racemic mixture	<b>05</b>
	<b>(c)</b> Write in detail mechanism and application of Swern oxidation	<b>05</b>
<b>Q.5</b>	<b>(a)</b> Give principle and application of nanochemistry.	<b>06</b>
	<b>(b)</b> Give the mechanism and application of Dimorth rearrangement and Reformatsky reaction.	<b>10</b>
<b>Q.6</b>	<b>(a)</b> Explain in detail about importance of green chemistry along with its application.	<b>06</b>
	<b>(b)</b> Give synthon approach for ciprofloxacin	<b>05</b>
	<b>(c)</b> Write a note on Suzuki reaction	<b>05</b>
<b>Q.7</b>	<b>(a)</b> Write in detail important role of stereochemistry in pharmacokinetics and pharmacodynamics.	<b>06</b>
	<b>(b)</b> Give the asymmetric synthesis of nifedipine and atenolol	<b>10</b>

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