

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.Ph. – SEMESTER-IV • EXAMINATION – WINTER -2022**

**Subject Code:BP402TP****Date:26/12/2022****Subject Name: Medicinal Chemistry-I****Time: 02:30PM TO 05:30PM****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>	(a) Explain Introduction, History and Development of Medicinal Chemistry.	<b>06</b>
	(b) Write a note on bioisosterism.	<b>05</b>
	(c) Explain factors affecting drug metabolism including stereo chemical aspects.	<b>05</b>
<b>Q.2</b>	(a) Explain biosynthesis and catabolism of catecholamine.	<b>06</b>
	(b) Give structure activity relationship of sympathomimetic agents.	<b>05</b>
	(c) Write a note on Phase-I reactions in drug metabolism	<b>05</b>
<b>Q.3</b>	(a) Explain classification of Sympathomimetic agents .	<b>06</b>
	(b) Explain structure activity relationship studies of Morphine and related drugs.	<b>05</b>
	(c) Give synthesis of Epinephrine and Salbutamol	<b>05</b>
<b>Q.4</b>	(a) Define adrenergic blockers. Explain SAR of beta ( $\beta$ )-blockers.	<b>06</b>
	(b) Write a note on narcotic antagonist	<b>05</b>
	(c) Write a note on solanaceous alkaloids and analogues.	<b>05</b>
<b>Q.5</b>	(a) Explain classification of Parasympathomimetic agents.	<b>06</b>
	(b) Explain structure activity relationship of cholinolytic agents.	<b>05</b>
	(c) Give Synthesis of Neostigmine and Carbachol.	<b>05</b>
<b>Q. 6</b>	(a) Classify Antipsychotics giving suitable examples.	<b>06</b>
	(b) Explain classification of Anticonvulsant drugs.	<b>05</b>
	(c) Write a note on non-steroidal anti-inflammatory drugs (NSAIDS).	<b>05</b>
<b>Q.7</b>	(a) Difference between sedative and hypnotics drugs. Explain SAR of benzodiazepine.	<b>06</b>
	(b) Give a synthesis of barbital and Diazepam.	<b>05</b>
	(c) Explain SAR of Phenothiazines with drug examples.	<b>05</b>

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