

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM - SEMESTER- 6 EXAMINATION – SUMMER -2023**

**Subject Code: 2260004****Date: 27/06/2023****Subject Name: Pharmaceutical Chemistry – VIII (Medicinal Chemistry - II)****Time: 10.30 a.m. to 1.30 p.m.****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 Occupational theory and Induced fit theory of receptor in detail.	<b>06</b>
	(b)	Enlist and explain factors affecting drug-receptor interaction.	<b>05</b>
	(c)	Write note on phase - II metabolic pathways.	<b>05</b>
<b>Q.2</b>	(a)	Write differences between opioid and non-opioid analgesics. Discuss SAR of phenothiazines.	<b>06</b>
	(b)	What is drug metabolism? Describe various sites of drug metabolism.	<b>05</b>
	(c)	Write the synthetic steps of Mefenamic acid and Diclofenac.	<b>05</b>
<b>Q.3</b>	(a)	Define and classify CNS stimulants. Write a note on analeptics.	<b>06</b>
	(b)	Define Insomnia. Explain mechanism and structure activity relationship of Barbiturates derivatives.	<b>05</b>
	(c)	Give synthesis of L-Dopa and Chlordiazepoxide.	<b>05</b>
<b>Q.4</b>	(a)	What is Parkinsons disease? Write a note on antiparkinson's agents.	<b>06</b>
	(b)	What is enzymes p-450? Explain catalytic reaction cycle involving them.	<b>05</b>
	(c)	Write note on cognition enhancers.	<b>05</b>
<b>Q.5</b>	(a)	Write a note on anti-anxiety agents.	<b>06</b>
	(b)	Classify the NSAIDs with chemical structures.	<b>05</b>
	(c)	Write a note on Disease Modifying Anti-Rheumatoid Drugs.	<b>05</b>
<b>Q. 6</b>	(a)	Write the medicinal chemistry of inhalational anesthetics.	<b>06</b>
	(b)	Write the synthesis, IUPAC name and uses of Imipramine.	<b>05</b>
	(c)	Give IUPAC name and synthesis of the following drugs : (i) Lignocaine (ii) Indomethacin (iii) Diclofenac	<b>05</b>
<b>Q.7</b>	(a)	Write short notes on DMARDS.	<b>06</b>
	(b)	Explain Phase I reactions of drug metabolism in brief.	<b>05</b>
	(c)	Discuss the structure-activity relationship of tricyclic antidepressants.	<b>05</b>

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