Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM - SEMESTER– 5 EXAMINATION – SUMMER -2023

Subject Code: BP501TT **Date: 30/06/2023**

Subject Name: Medicinal Chemistry II

Time:02.30 p.m. to 5.30 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.**

Q.1	**(a)**	Enlist various histamine receptors and their functions. Discuss stereochemistry of histamine.	**06**
	(b)	Classify H_1 Anti-histaminics and H_2 Antagonist with chemical structures.	**05**
	(c)	Give Synthesis of Diphenhydramine and Cimetidine.	**05**
Q.2	**(a)**	Classify Antineoplastic agents. Give mechanism of action of Antimetabolites.	**06**
	(b)	What is Angina? Classify Antianginal agents. Give mechanism of action of Calcium channel blockers.	**05**
	(c)	Classify antihypertensive agents. Give at least one structure from each class.	**05**
Q.3	**(a)**	Explain with the help of a diagram of nephron where and how do Diuretics act?	**06**
	(b)	Give synthesis of Chlorthiazide and Isosorbide nitrate.	**05**
	(c)	Define and classify Antiarrhythmic drugs. Explain mode of action in each class.	**05**
Q.4	**(a)**	Write a notes on 1. HMG Co-A reductase inhibitors. 2. Anticoagulants	**06**
	(b)	Explain in detail about nomenclature and stereochemistry of steroids.	**05**
	(c)	Enlist the clotting factors and the process of clotting. Discuss the mechanism of action of Warfarin.	**05**
Q.5	**(a)**	What is Congestive Heart Failure? Discuss the mechanism by which drugs act to prevent congestion?	**06**
	(b)	Write structure and use of following drugs: (a) Ethacrynic acid (b) Benzocaine (c) Metformin (d) Ranitidine (e) Cetrizine	**05**
	(c)	Write notes on Thyroid and Antithyroid drugs.	**05**
Q. 6	**(a)**	Define Diabetes? Classify antidiabetics with examples and give their mechanism of action	**06**
	(b)	Give synthesis of Benzocaine and Dibucaine.	**05**
	(c)	Discuss SAR of Local anesthetics.	**05**
Q.7	**(a)**	Give structure and uses of (i) Amlodipine (ii) Verapamil (iii) Enalapril	**06**
	(b)	Write a short note on ACE inhibitors.	**05**
	(c)	Explain types of diabetes and write a note on various insulin preparations and mechanism of action.	**05**

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