

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 5 EXAMINATION – SUMMER-2025

Subject Code: BP501TT

Date: 08-05-2025

Subject Name: Medicinal Chemistry II

Time: 02.30 PM TO 05.30 PM

Total Marks: 80

Instructions:

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- | | | | |
|-------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Q.1 | (a) | Enlist various histamine receptors and their functions. Write a note on H ₂ receptor antagonists. | 06 |
| | (b) | Write a short note on proton pump inhibitors. | 05 |
| | (c) | Outline the synthesis of a) Diphenhydramine hydrochloride b) Cimetidine. | 05 |
| Q.2 | (a) | Define and classify anti-neoplastic agents. Give synthesis of methotrexate. | 06 |
| | (b) | Classify alkylating agents with structures. | 05 |
| | (c) | Write a short note on dihydropyridines. | 05 |
| Q.3 | (a) | What are diuretics? Classify diuretics with suitable examples. | 06 |
| | (b) | Write a note on organic nitrates. | 05 |
| | (c) | Explain SAR of Local anesthetics. | 05 |
| Q.4 | (a) | What is Angina? Classify Antianginal agents. Explain one drug from vasodilator category. | 06 |
| | (b) | Enlist the clotting factors and the process of clotting. Discuss the mechanism of action of Warfarin. | 05 |
| | (c) | Write a short note on Oral contraceptives. | 05 |
| Q.5 | (a) | Explain in detail about nomenclature and stereochemistry of steroids. | 06 |
| | (b) | Write a note on Loop diuretics. Give synthesis of Furosemide. | 05 |
| | (c) | Write a short note on drugs used in management of CHF. | 05 |
| Q. 6 | (a) | What is Diabetes Mellitus? Write chemical classification of oral hypoglycemic agents with suitable examples and two structures from each class. | 06 |
| | (b) | Describe drugs used for erectile dysfunction. | 05 |
| | (c) | Write an informative note on antithyroid drugs. | 05 |
| Q.7 | (a) | Define and classify anti-arrhythmic agents and explain mode of action of each class. | 06 |
| | (b) | Give synthesis of Procaine and Dibucaine. | 05 |
| | (c) | Classify antihyperlipidemic agents with suitable examples and structures in each category. | 05 |
