

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm - SEMESTER- V-EXAMINATION – SUMMER -2022

Subject Code: BP501TT**Date: 15/06/2022****Subject Name: Medicinal Chemistry II****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.

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| Q.1 | (a) | Write a short note on H ₂ receptor antagonist. | 06 |
| | (b) | Discuss in detail about gastric proton pump inhibitors along with its mechanism of action. | 05 |
| | (c) | Classify H ₁ -receptor antagonist. Write the structure, IUPAC nomenclature and use of one drug from each category. | 05 |
| Q.2 | (a) | Write chemical structure, mechanism of action and therapeutic use of any three drugs from anti-cancer alkylating agents. | 06 |
| | (b) | Describe drugs used for erectile dysfunction. | 05 |
| | (c) | Write the chemical structure and use of following drugs:
(i) Cromolyn sodium (ii) Cetirizine (iii) Thiotepe (iv) Cyclophosphamide
(v) Diethyl stilbesterol | 05 |
| Q.3 | (a) | Classify anti-hypertensive agents with suitable examples. | 06 |
| | (b) | Write a short note on oral anticoagulants. | 05 |
| | (c) | Give synthetic scheme and use of (i) Acetazolamide (ii) Warfarin | 05 |
| Q.4 | (a) | Classify corticosteroids with relevant examples. Give chemical structures of any three drugs from each category. | 06 |
| | (b) | Describe chemistry of cardiac glycosides. | 05 |
| | (c) | Write the chemical structure and IUPAC nomenclature of following drugs:
(i) Tolbutamide (ii) Phenytoin Sodium (iii) Benzocaine (iv) Furosemide
(v) Ethacrynic acid | 05 |
| Q.5 | (a) | What is Diabetes Mellitus? Write chemical classification of oral hypoglycemic agents with suitable examples and two structures from each class. | 06 |
| | (b) | Define and classify anti-arrythmic agents and explain mode of action of each class. | 05 |
| | (c) | Write a short note on anti-hyperlipidemic agents. | 05 |
| Q. 6 | (a) | Classify anti-anginal agents. Describe the mechanism of action and use of nitrates. | 06 |
| | (b) | Write the chemical structure and use of following drugs:
(i) Methyl Dopa (ii) Mannitol (iii) Captopril (iv) Metformin (v) Nitroglycerin | 05 |
| | (c) | Give synthetic scheme of following drugs:
(i) Diphenhydramine hydrochloride (ii) Methotrexate | 05 |
| Q.7 | (a) | What are diuretics? Classify diuretics with suitable examples. | 06 |
| | (b) | Write an informative note on antithyroid drugs. | 05 |
| | (c) | Outline the SAR of local anesthetics. | 05 |