

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER-8 EXAMINATION – WINTER -2023

Subject Code: 2280003**Date: 06/12/2023****Subject Name: Pharmaceutical Chemistry -X(Medicinal Chemistry-III)****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.

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| Q.1 | (a) Explain the structure-activity relationship of ACE inhibitors. | 06 |
| | (b) Define and classify antidiabetic agents. | 05 |
| | (c) Write a note on Antiplatelet Agents. | 05 |
| Q.2 | (a) Write a short note on the mechanism of action of Sulphonylureas. Write synthesis of Metformin. | 06 |
| | (b) Write a synthesis of clofibrate and warfarin. | 05 |
| | (c) Write a note on thrombolytic agents. | 05 |
| Q.3 | (a) Explain the SAR of cardiac glycosides. | 06 |
| | (b) Write the mechanism of action of cardiac glycoside. Write synthesis of Dobutamine. | 05 |
| | (c) Write a note on Immunomodulators. | 05 |
| Q.4 | (a) Define and classify antihypertensive agents. | 06 |
| | (b) Write a note on antihyperlipidemic agents. | 05 |
| | (c) Which heterocyclic ring is present in carbimazole, give a synthesis of it. | 05 |
| Q.5 | (a) Give a detailed explanation of the SAR of HMG CoA Reductase inhibitors. | 06 |
| | (b) Write a short note on the nomenclature and stereochemistry of steroids. Enlist some therapeutic applications of Adrenocorticoids. | 05 |
| | (c) Define Thrombolytic agents and Plasma expanders. Enlist some anti-obesity drugs. | 05 |
| Q.6 | (a) Write the mechanism of action of Antiarrhythmic agents. | 06 |
| | (b) Give a brief note on Antianginal agents. Write synthesis of Isosorbide dinitrate. | 05 |
| | (c) Write a short note on Antithyroid Drugs. | 05 |
| Q.7 | (a) Give detailed SAR of thiazide diuretics. | 06 |
| | (b) Give synthesis of any one diuretic drug which contains furan heterocyclic ring. | 05 |
| | (c) Define and classify the Diuretics. | 05 |
