

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM - SEMESTER- 8 EXAMINATION – SUMMER-2024**

**Subject Code:2280003****Date: 03/05/2024****Subject Name: Pharmaceutical Chemistry – X (Medicinal Chemistry - III)****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.

- Q.1** (a) What is Diabetes Mellitus? Classify Antidiabetic agents with suitable examples from each category. **06**
- (b) Discuss SAR of Thiazide diuretics. **05**
- (c) Give synthesis of Lignocaine and Clofibrate. **05**
- Q.2** (a) Classify Antianginal agents with suitable examples. Give mechanism of action of any one Antianginal agent. **06**
- (b) Outline synthesis of Metformin and Tolbutamide. **05**
- (c) Explain SAR of HMG Co-A reductase inhibitors. **05**
- Q.3** (a) Define and classify Diuretics with structural examples from each category. **06**
- (b) Write a note on SAR of ACE inhibitors. **05**
- (c) Give any two synthesis of (i) Hydralazine (ii) Captopril (iii) Acetazolamide **05**
- Q.4** (a) What is Hypertension? Classify Anti-hypertensive agents with examples. **06**
- (b) Classify Antiarrhythmic agents with chemical structures. **05**
- (c) Give mechanism of action, uses and synthesis of Warfarin. **05**
- Q.5** (a) What are Cardiac glycosides? Describe SAR of Cardiac glycosides. **06**
- (b) Give synthesis of Methimazole and Atenolol. **05**
- (c) Write a note on Antiplatelet agents. **05**
- Q. 6** (a) Describe stereochemistry and nomenclature of Steroids. **06**
- (b) Define Hyperthyroidism. Discuss a brief note on Antithyroid drugs. **05**
- (c) Write a note on Immunomodulators. **05**
- Q.7** (a) Write a note on Coagulants and Plasma expanders. **06**
- (b) Discuss SAR of Progestins. Give examples and uses of Progesterone analogues. **05**
- (c) Write a note on Adrenocorticoids. **05**

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