

GUJARAT TECHNOLOGICAL UNIVERSITY
PHARM.D YEAR-3 EXAMINATION – SUMMER - 2025

Subject Code: 838805**Date: 13-05-2025****Subject Name: Medicinal Chemistry****Time: 10:30 A.M. TO 1:30 P.M.****Total Marks: 70****Instructions:**

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

- Q.1** (a) Define hyperlipidemia. Define and classify antihyperlipidemic agents with at least two drug names and one structure of each category. **06**
- (b) Write a short note on ACE inhibitors with its mechanism of action in detail. **04**
- (c) Define angina and antianginal agents. Discuss in detail about nitrates and nitrites with its mechanism of action, three drug names and structure that comes under nitrates and nitrites family. **04**
- Q.2** (a) Define and classify antiviral agents with at least two drug names and one structure of each category. **06**
- (b) Give SAR on fluoroquinolones. **04**
- (c) Share your idea about antiarrhythmic agents. **04**
- Q.3** (a) Define and classify antineoplastic agents with at least two drug names and one structure of each category. **06**
- (b) Write a short note on oral hypoglycemic agents. **04**
- (c) Give SAR on adrenocorticoids. **04**
- Q.4** (a) Write note on combinatorial chemistry. **06**
- (b) Give synthesis of: (any two) **04**
- i). Sulphamehoxazole ii). Isoniazid iii). Ketoconazole iv). Propranolol.
- (c) Give SAR on Tetracyclines. **04**
- Q.5** (a) Write a short note on antithyroid agents. Give synthesis of Carbimazole. **06**
- (b) Discuss your knowledge on anticoagulants. **04**
- (c) Write a note on potassium sparing diuretics. **04**
- Q.6** (a) Write synthesis of: (any three) **06**
- i). Amantadine ii). Mefloquine iii). Thiotepa iv). Methotrexate
v). Trimethoprim
- (b) Discuss in detail about chemical degradation of Penicillins. **04**
- (c) Define scabies. Write a short note on antiscabies agents. **04**
- Q.7** (a) Write in detail about CADD. **06**
- (b) Discuss in detail about diagnostic agents. **04**
- (c) Write a short note on antipedicular agents. **04**
