

GUJARAT TECHNOLOGICAL UNIVERSITY
PHARM.D YEAR-3 EXAMINATION – SUMMER - 2024

Subject Code: 838805**Date: 15-05-2024****Subject Name: Medicinal Chemistry****Time: 10:30 AM TO 1:30 PM****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) What are aminoglycoside antibiotics? Give chemistry and SAR of aminoglycoside **06**
(b) Chemically classify Sulphonamide and Discuss its SAR **04**
(c) What are Fluoroquinolones? Classify them. Give the mechanism of action of Fluoroquinolone **04**
- Q.2** (a) Give source of any two broad spectrum antibiotics. Write short note on stereochemistry and SAR of Tetracycline. **06**
(b) Why azithromycin is better macrolide as compared to erythromycin? Discuss intramolecular ketal formation in erythromycin under acidic condition and its importance in degradation of erythromycin **04**
(c) Classify anti-HIV agents and write a note on reverse transcriptase inhibitors **04**
- Q.3** (a) What are antiprotozoal agents? Discuss the chemistry and SAR of 4-aminoquinolines. **06**
(b) Classify Antifungal agents, write short note on antifungal Antibiotics **04**
(c) Write synthesis of chloroquine and Isoniazid **04**
- Q.4** (a) Explain Lipophilic, steric and electronic parameter used in QSAR in detail. **06**
(b) Give the Application, Advantages and Disadvantages for combinatorial chemistry **04**
(c) Explain solid support synthesis and supports used in same. **04**
- Q.5** (a) Write chemical classification of oral hypoglycemic agents with suitable examples **06**
(b) Write a short note on anti-hyperlipidemic agents. **04**
(c) Classify anti-hypertensive agents with suitable examples. **04**
- Q.6** (a) Explain in detail about nomenclature and stereochemistry of steroids. **06**
(b) Write a short note on Angiotensin Converting Enzyme inhibitors. **04**
(c) Discuss in detail oral anticoagulants. **04**
- Q.7** (a) What do you mean by antineoplastic agents, classify them and discuss in details Alkylating agents. **06**
(b) What are diuretics? Classify diuretics with suitable examples **04**
(c) Classify anti-anginal agents. Describe the mechanism of action and use of nitrates **04**
