

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 7 EXAMINATION – WINTER -2024

Subject Code: 2270003**Date: 26-11-2024****Subject Name: Pharmaceutical Chemistry – IX (Medicinal Chemistry - III)****Time: 10.30 AM TO 01.30 PM****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) What are Cephalosporins? Give the SAR of Cephalosporins. | 06 |
| | (b) What are Fluoroquinolones? Give their SAR. | 05 |
| | (c) Write detail SAR of Penicillins. | 05 |
| Q.2 | (a) What are antitubercular agents? Briefly explain first line antitubercular agents. | 06 |
| | (b) Short Note on Computer Aided Drug Design. | 05 |
| | (c) Classify sulphonamide. Give synthesis of sulphamethoxazole. | 05 |
| Q.3 | (a) Classify antimalarial agents with examples and structures. | 06 |
| | (b) Write chemical name and synthesis of sulfacetamide and norfloxacin. | 05 |
| | (c) What is carcinoma? Classify anticancer agent with examples and structures. | 05 |
| Q.4 | (a) What is QSAR? Give a detailed note on Hansch model. | 06 |
| | (b) Write a note on antiviral agents. | 05 |
| | (c) Write in detail about drugs used in HIV infection. | 05 |
| Q.5 | (a) Explain in brief about azoles as antifungal agents. Give the synthesis of ketoconazole. | 06 |
| | (b) Classify cephalosporin and represent various ring and numbering system of clinically available beta-lactam antibiotic types with examples. | 05 |
| | (c) Write a detailed note on combinatorial chemistry. | 05 |
| Q. 6 | (a) Give the IUPAC name and synthesis of following drugs. i. Chloroquine ii. Pyrimethamine. | 06 |
| | (b) Write short notes on Antiamoebic agents. | 05 |
| | (c) Discuss the chemistry of aminoglycoside antibiotics. | 05 |
| Q.7 | (a) Explain epimerization and degradation of tetracycline in detail. | 06 |
| | (b) Explain in detail SAR of 4-Aminoquinoline & 8-aminoquinoline. | 05 |
| | (c) What is lead? Enlist the steps to identify the leads. | 05 |
