

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 7 EXAMINATION – SUMMER -2023

Subject Code: 2270003**Date: 20/06/2023****Subject Name: Pharmaceutical Chemistry – IX (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) | What do you mean by chemotherapeutic agents? Give SAR of Cephalosporins. | 06 |
| | (b) | What are Fluoroquinolones ? Give their SAR. | 05 |
| | (c) | Write short notes on computer aided drug design. | 05 |
| Q.2 | (a) | Write detail SAR of Penicillins. | 06 |
| | (b) | What are antitubercular agents? Briefly explain first line antitubercular agents. | 05 |
| | (c) | Write short note on “Free Wilson Mathematical model of QSAR” | 05 |
| Q.3 | (a) | Define and classify Anti-neoplastic agents. Give the method of synthesis of Chlorambucil. | 06 |
| | (b) | Give the method of synthesis & uses of i) Sulphacetamide ii) Ofloxacin | 05 |
| | (c) | Define and classify Antiviral agent with suitable examples. Give the method synthesis of Amantadine. | 05 |
| Q.4 | (a) | Classify Antibiotics. Explain the SAR of β -Lactam antibiotic. | 06 |
| | (b) | Give a detailed account of antiameobic agents. | 05 |
| | (c) | Give synthesis of the following drugs : (i) Fluorouracil (ii) Tamoxifen | 05 |
| Q.5 | (a) | Write a note on molecular modelling. | 06 |
| | (b) | Write in detail about drugs used in HIV infection. | 05 |
| | (c) | What is combinatorial chemistry? Discuss in detail about different methodologies used for synthesis in it. | 05 |
| Q. 6 | (a) | Classify sulphonamide. Give synthesis of sulphamethoxazole. | 06 |
| | (b) | Discuss in brief lead optimization. | 05 |
| | (c) | Write synthesis of a) Albendazole b) Clotrimazole | 05 |
| Q.7 | (a) | Give the IUPAC name and synthesis of chloramphenicol. | 06 |
| | (b) | Discuss in detail about degradation products of penicillin. | 05 |
| | (c) | Discuss the chemistry of aminoglycoside antibiotics. | 05 |
