

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 7 EXAMINATION – SUMMER -2019

Subject Code: 2270003

Date: 13-05-2019

Subject Name: Pharmaceutical Chemistry – IX (Medicinal Chemistry - III)

Time: 02:30 PM TO 05:30 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 is combinatorial chemistry? Discuss in detail about different methodologies used for synthesis? | 06 |
| | (b) | Explain Hansch Linear Free Energy Relationship model in drug design? | 05 |
| | (c) | Explain the Molecular modeling strategies and its applications? | 05 |
| Q.2 | (a) | Give the SAR of quinolone antibacterial? Draw the scheme of synthesis of ciprofloxacin? | 06 |
| | (b) | Write a note on Computer Aided Drug Design? | 05 |
| | (c) | Give the synthesis of –
i) Chloramphenicol ii) Sulphacetamide | 05 |
| Q.3 | (a) | Explain the SAR of sulfonamides? Comments on sulphonamides are not use in presence of pus? | 06 |
| | (b) | Discuss in detail alkylating agents? | 05 |
| | (c) | Write a short note on aminoglycoside antibiotics? | 05 |
| Q.4 | (a) | Give the method of synthesis & uses of -
i) Trimethoprim ii) Norfloxacin | 06 |
| | (b) | Classify anti-HIV agents with examples and write a note on protease inhibitors? | 05 |
| | (c) | Explain the SAR of Tetracyclines? | 05 |
| Q.5 | (a) | Define and classify anti-neoplastic agents with examples? Give the synthesis of Tamoxifen? | 06 |
| | (b) | Discuss on the natural products used as anti-neoplastic agents? | 05 |
| | (c) | Write a short note on antifungal agents? | 05 |
| Q. 6 | (a) | Define and Classify antimalarial with suitable examples of each class? Give synthesis and mode of action of chloroquine? | 06 |
| | (b) | Write a short notes on Antiamoebic agents? | 05 |
| | (c) | Give the synthesis of –
i) Amandatine ii) Fluorouracil | 05 |
| Q.7 | (a) | Classify antitubercular agents with examples? Explain the MOA of first line antitubercular agents? Give the scheme of synthesis of ethambutol? | 06 |
| | (b) | Write the degradation of penicillin with structures? | 05 |
| | (c) | Write a note on anthelmintics? | 05 |
