

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 7- EXAMINATION –WINTER - 2018

Subject Code:2270003

Date: 19/11/2018

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) | Classify sulfonamide on the basis of chemical structure and explain biosynthetic pathway leading to THF synthesis with involvement of sulfonamides. | 06 |
| | (b) | Explain SAR of fluoroquinolones. | 05 |
| | (c) | Write chemical name and synthesis of sulfacetamide and norfloxacin. | 05 |
| Q.2 | (a) | Classify cephalosporin and represent various ring and numbering system of clinically available beta-lactam antibiotic types with examples. | 06 |
| | (b) | Explain chemical instability of penicillin in detail. | 05 |
| | (c) | Explain SAR activities of aminoglycoside antibiotics. | 05 |
| Q.3 | (a) | Give any three structures of macrolide antibiotics and explain why erythromycin is unstable in acid media. | 06 |
| | (b) | Explain epimerization and degradation of tetracycline in detail. | 05 |
| | (c) | Write a short note on carbapenem and monobactams. | 05 |
| Q.4 | (a) | Classify antimalarial agents with examples and structures. | 06 |
| | (b) | Write chemical name and synthesis of primaquine and metronidazole. | 05 |
| | (c) | Explain SAR activities of quinolines. | 05 |
| Q.5 | (a) | Explain XDR-TB. write a note on first-line anti TB agents. | 06 |
| | (b) | Classify and explain mechanism of action of azole antifungal agents. | 05 |
| | (c) | Write chemical name and synthesis of ketoconazole and isoniazid. | 05 |
| Q. 6 | (a) | What is carcinoma? Classify anticancer agent with examples and structures. | 06 |
| | (b) | Write a note on alkylating agents used as anticancer agent. | 05 |
| | (c) | Write a note on antiviral agents. | 05 |
| Q.7 | (a) | Explain in detail molecular modeling. | 06 |
| | (b) | Write a note on methods of lead discovery. | 05 |
| | (c) | Write a note on QSAR. | 05 |
