

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm – SEMESTER VI- • EXAMINATION – SUMMER -2021

Subject Code:BP601TP**Date:03/08/2021****Subject Name: Medicinal Chemistry III****Time: 02:30PM 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.

- Q.1** (a) Do as directed **06**
- I. Comment – Tetracyclines are contraindicated with milk.
 - II. Comment: Cephalosporins are more resistant towards β -lactamase enzyme than penicillin in general.
 - III. How the problem of crystalluria is avoided while using sulpha drug as chemotherapeutic agent.
- (b) Define and classify sulfonamides with structural examples. **05**
- (c) Give structure of following drugs. **05**
- | | | |
|----------------------|------------------|-----------------|
| i) Chlortetracycline | ii) Azithromycin | iii) Artemether |
| iv) Griseofulvin | v) Norfloxacin | |
- Q.2** (a) Define and classify Penicillines and Tetracyclines with its mechanism of action. **06**
- (b) Give synthesis of Pamaquine and Nitrofurantoin. **05**
- (c) Give name and structure of any five drug containing imidazole ring system. **05**
- Q.3** (a) Define and classify anti-tubercular agents with synthesis of any one drug. **06**
- (b) Give brief note on SAR of sulfonamides with structural examples. **05**
- (c) Define and classify antiviral agents with structural examples of any five drugs. **05**
- Q.4** (a) Define and classify Macrolides and Chloramphenicol with its mechanism of action. **06**
- (b) Give brief note on SAR of Quinolones with structural examples. **05**
- (c) Give brief note on MDR TB, XDR TB and TDR TB. **05**
- Q.5** (a) Define drug design. Give brief note on physicochemical parameters used in QSAR. **06**
- (b) Give synthesis of Chloramphenicol and Chloroquine. **05**
- (c) Define Prodrug and application of prodrug design. Give name and structure of any three prodrug. **05**
- Q.6** (a) Define and classify Quinolones with synthesis of any one drug. **06**
- (b) Give synthesis of Miconazole and Mebendazole. **05**
- (c) Give brief note on etiology of malaria. **05**
- Q.7** (a) Give synthesis of Dapson and Trimethoprim. **06**
- (b) Do as directed. **05**
- I. Comment: Amoxicillin and Ampicillin are frequently combined with clavulanic acid.
 - II. Why tetracyclins are amphoteric in nature?
- (c) Give brief note on combinatorial chemistry. **05**