

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER-6 EXAMINATION – WINTER -2023

Subject Code: BP601TP**Date: 02/12/2023****Subject Name: 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.

- Q.1** (a) Explain the following terms with suitable examples: **06**
i) Prodrug
ii) Docking
iii) Pharmacophore Modeling
(b) Classify anthelmintic agents. Give synthesis of Diethylcarbamazine citrate. **05**
(c) Write short note on macrolide antibiotics. **05**
- Q.2** (a) What are anti-tubercular agents? Briefly explain anti-tubercular antibiotics. **06**
(b) Give SAR of Sulphonamides. **05**
(c) Write detailed note on anti-retroviral agents. **05**
- Q.3** (a) Write short note on Penicillin. Discuss about β -lactamase inhibitors. **06**
(b) Classify anti-malarial agents. **05**
(c) Write synthetic scheme with IUPAC nomenclature of following drugs: **05**
i) Isoniazid
ii) Sulphamethoxazole
- Q.4** (a) Classify sulphonamides. Give synthesis of Sulphacetamide. **06**
(b) Write short note on Tetracyclines. **05**
(c) Explain SAR of Fluoroquinolones. **05**
- Q.5** (a) Explain the following: **06**
i) Lipinski's rule of 5
ii) Hansch analysis
(b) Write short note on anti-fungal antibiotics. **05**
(c) Write a brief note on quinolines as antimalarial agents. **05**
- Q.6** (a) Explain various physico-chemical parameters used in QSAR. **06**
(b) Write an informative note on anti-amoebic agents. **05**
(c) Explain mechanism of action, use and side effects of Cephalosporins. **05**
- Q.7** (a) Explain concept and applications of combinatorial chemistry. **06**
(b) Write short note on Aminoglycosides. **05**
(c) Draw the structure and give use of following drugs: **05**
i) Nalidixic acid
ii) Chloramphenicol
iii) Para amino salicylic acid (PAS)
iv) Mebendazole
v) Metronidazole