

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm SEMESTER- VI • EXAMINATION – SUMMER -2022

Subject Code:BP601TP**Date: 01/06/2022****Subject Name: MEDICINAL CHEMISTRY-III****Time: 10:30AM TO 01:30PM****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) What are antitubercular agents? Briefly explain antibiotics antitubercular agents. **06**
- (b) What is combinatorial chemistry? Discuss in detail about different methodologies used for synthesis? **05**
- (c) Explain in brief about synthetic as antifungal agents. Give the synthesis of Miconazole. **05**
- Q.2** (a) Give the SAR of Tetracyclines. **06**
- (b) Give the IUPAC name and synthesis of following drugs. **05**
- i. Chloramphenicol
- ii. Isoniazide
- (c) Explain Hansch Linear Free Energy Relationship model in drug design. **05**
- Q.3** (a) Classify cephalosporin and represent various rings and numbering system of clinically available beta-lactam antibiotic types with examples. **06**
- (b) Explain SAR activities of quinolines. **05**
- (c) Write a note on Computer Aided Drug Design? **05**
- Q.4** (a) Give any three structures of macrolide antibiotics and explain why erythromycin is unstable in acid media. **06**
- (b) Give the synthesis of – 1) Acyclovir 2) Dapsone **05**
- (c) Write a note on molecular modeling. **05**
- Q.5** (a) What are β -lactam antibiotics? Why penicillin is not active against penicillinase secreting microbes? Give some examples of penicillinase resistant penicillins. **06**
- (b) Write a note on basic concepts and application of prodrugs design. **05**
- (c) What is malaria? How it spreads? Classify antimalarial drugs with examples. **05**
- Q.6** (a) What are antiviral drugs? Explain mechanism, therapeutics uses and structures of Loviride, Saquinavir and Idoxuridine. **06**
- (b) Write chemical name and synthesis of sulfamethoxazole and Tolnafate. **05**
- (c) Give the IUPAC name, synthesis and mechanism of Mebendazole an anthelmintic agent. **05**
- Q.7** (a) Explain: Biguanides and dihydro triazines. **06**
- (b) What are Aminoglycosides? Discuss their SAR with examples. **05**
- (c) Draw the structures of **05**
1. Mefloquine 2. Capreomycin sulphate 3. Ritonavir 4. Methamphetamine
5. Ivermectin
