Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM - SEMESTER– 6 EXAMINATION – WINTER -2024

Subject Code:BP601TP **Date: 19-11-2024**

Subject Name: 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.**

Q.1	**(a)**	Discuss Penicillins with classification and mechanism of action.	**06**
	(b)	Write down the chemistry and SAR of sulphonamides.	**05**
	(c)	Define beta lactam antibiotics and classify Cephalosporins with suitable examples.	**05**
Q.2	**(a)**	Write brief note on SAR of Quinolones with structural examples.	**06**
	(b)	Write uses and synthesis of the following drugs: (i) Acyclovir (ii) Para amino salicylic acid	**05**
	(c)	Write a note on Aminoglycosides.	**05**
Q.3	**(a)**	Define and classify anti-tubercular agents with synthesis of Isoniazid.	**06**
	(b)	Give the synthesis of following drugs. i. Chloroquine phosphate ii. Ciprofloxacin	**05**
	(c)	Classify antiviral agents with structural examples of any five drugs.	**05**
Q.4	**(a)**	Write structure, synthesis, use and mechanism of action of Chloramphenicol.	**06**
	(b)	Write a note on basic concepts and application of prodrugs design.	**05**
	(c)	Write down SAR of quinolines with structural examples.	**05**
Q.5	**(a)**	What is malaria? How it spreads? Classify antimalarial drugs with examples.	**06**
	(b)	Write down classification of Anthelmintic agents. Write down synthesis of Mebendazole.	**05**
	(c)	Discuss mode of action, therapeutic uses and classification of Tetracyclines.	**05**
Q. 6	**(a)**	Explain in brief about azoles as antifungal agents. Give the synthesis of Miconazole.	**06**
	(b)	Explain the mechanism of action of Co-trimoxazole. Write synthesis of Trimethoprim and Sulfamethoxazole.	**05**
	(c)	Write a note on Macrolide.	**05**
Q.7	**(a)**	Define combinatorial chemistry. Discuss concept and applications of combinatorial chemistry.	**06**
	(b)	What is drug design? Give brief note on physicochemical parameters used in QSAR.	**05**
	(c)	Write about molecular docking techniques.	**05**

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