Seat No.: _____ Enrolment No. _____

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 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.	**06**
	(b)	Define and classify sulfonamides with structural examples.	**05**
	(c)	Give structure of following drugs. i) Chlortetracycline ii) Azithromycin iii) Artemether iv) Griseofulvin v) Norfloxacin	**05**
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 Mebindazole.	**05**
	(c)	Give brief note on etiology of malaria.	**05**
Q.7	**(a)**	Give synthesis of Dapson and Trimethoprime.	**06**
	(b)	Do as directed. I. Comment: Amoxycillin and Ampicilin are frequently combined with clavulanic acid. II. Why tetracyclins are amphoteric in nature?	**05**
	(c)	Give brief note on combinatorial chemistry.	**05**

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