Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.PHARM – SEMESTER -1 - EXAMINATION –WINTER - 2018

Subject Code: MPC103T **Date: 05/01/2019**

Subject Name: Advanced Medicinal Chemistry

Time :10:30 AM TO 01:30 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)**	Enumerate stages of drug discovery and explain methods of lead discovery.	**06**
	(b)	Explain the theories involved in drug receptor interaction.	**05**
	(c)	Why we required lead optimization? Explain methods involved in lead optimization.	**05**
Q.2	**(a)**	Add a note on rational behind prodrug design.	**06**
	(b)	Explain strategies to combat drug resistance in antibiotics therapy.	**05**
	(c)	Why is cancer so difficult to cure? Explain with drug resistance.	**05**
Q.3	**(a)**	Why analog design important in drug design? Explain any one strategy involved in analog design.	**06**
	(b)	Write recent advancement in anticancer agents.	**05**
	(c)	Why stereochemistry is important in drug action?	**05**
Q.4	**(a)**	Explain the strategies involved in development antiviral agents.	**06**
	(b)	Explain enzyme kinetics & principles of enzyme inhibitors.	**05**
	(c)	Add a note on enzyme inhibitors in basic research.	**05**
Q.5	**(a)**	Explain design of peptidomimetics.	**06**
	(b)	Explain chemistry of prostaglandins, leukotrienes and thromboxanes.	**05**
	(c)	Add a note on identification, validation and diversity of drug targets.	**05**
Q. 6	**(a)**	Explain latest development of antihypertensive medication.	**06**
	(b)	Add a note on carrier linked prodrugs.	**05**
	(c)	Explain simplification approach in lead optimization	**05**
Q.7	**(a)**	Explain non-covalently and covalently binding enzyme inhibitors.	**06**
	(b)	Add a note on COX-1 & COX-2 inhibitors.	**05**
	(c)	Explain H1 & H2 receptor antagonists.	**05**

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