Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – VIII • EXAMINATION – SUMMER • 2014

Subject Code: 280003 Date: 23-05-2014

Subject Name: Pharmaceutical Chemistry X (Medicinal Chemistry)

Time: 10:30 am - 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)	What are cardiotonic agents? Give the SAR of cardiac glycosides.	**06**
	(b)	Classify Antiarrhythmic agents with one structure in each class. Write synthesis of Lignocaine.	**05**
	(c)	Write short notes on sodium channel blockers as antiarrhythmic agents.	**05**
Q.2	(a)	Give SAR of HMG-CoA reductase inhibitors.	**06**
	(b)	Write short notes on antianginal agents.	**05**
	(c)	Give the synthesis of following drugs (Any two): i. Captopril ii. Atenolol iii. Clofibrate	**05**
Q.3	(a)	Write Mechanism of action, uses, side effect and SAR of ACE inhibitors.	**06**
	(b)	Classify antihypertensive agents with one structure in each class.	**05**
	(c)	Give the synthesis of following drugs (Any two): i. Nifedipine ii. Dobutamine iii. Hydrochlorthiazide	**05**
Q.4	(a)	Classify diuretics with one structure in each class. Write mechanism of action, uses and side effect of spironolactone.	**06**
	(b)	Give SAR of thiazide diuretics.	**05**
	(c)	Write short notes on heparin as anticoagulant.	**05**
Q.5	(a)	Give SAR of 1,4-Dihydropyridines antihypertensive agents.	**06**
	(b)	Write short notes on antiplatelet agents.	**05**
	(c)	Give brief notes on thrombolytic agents.	**05**
Q. 6	(a)	Write short notes on Hansch Linear Free Energy Relationship (LFER) model in QSAR study.	**06**
	(b)	Give detail notes on combinatorial synthesis.	**05**
	(c)	Write short notes on plasma expander and antiobesity drugs	**05**
Q. 7	(a)	What is Molecular Modeling (MM)? Explain the same in detail.	**06**
	(b)	Write detail notes on lead optimization.	**05**
	(c)	Write brief notes on Lipophilic parameters in drug design.	**05**

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