Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

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

Date: 23-05-2014

Subject Code: 280003

	Time	ect Name: Pharmaceutical Chemistry X (Medicinal Chemistry) : 10:30 am - 01:30 pm Total Marks: 80	
	Instru	 Attempt any five questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 	
Q.1	(a) (b)	What are cardiotonic agents? Give the SAR of cardiac glycosides. Classify Antiarrhythmic agents with one structure in each class. Write synthesis of Lignocaine.	06 05
	(c)	Write short notes on sodium channel blockers as antiarrhythmic agents.	05
Q.2	(a) (b) (c)	Give SAR of HMG-CoA reductase inhibitors. Write short notes on antianginal agents. Give the synthesis of following drugs (Any two): i. Captopril ii. Atenolol iii. Clofibrate	06 05 05
Q.3	(a) (b) (c)	Write Mechanism of action, uses, side effect and SAR of ACE inhibitors. Classify antihypertensive agents with one structure in each class. Give the synthesis of following drugs (Any two): i. Nifedipine ii. Dobutamine iii. Hydrochlorthiazide	06 05 05
Q.4	(a) (b) (c)	Classify diuretics with one structure in each class. Write mechanism of action, uses and side effect of spironolactone. Give SAR of thiazide diuretics. Write short notes on heparin as anticoagulant.	06 05 05
Q.5		Give SAR of 1,4-Dihydropyridines antihypertensive agents. Write short notes on antiplatelet agents. Give brief notes on thrombolytic agents.	06 05 05
Q. 6	(a) (b) (c)	Write short notes on Hansch Linear Free Energy Relationship (LFER) model in QSAR study. Give detail notes on combinatorial synthesis. Write short notes on plasma expander and antiobesity drugs	06 05 05
Q. 7	(a) (b) (c)	What is Molecular Modeling (MM)? Explain the same in detail. Write detail notes on lead optimization. Write brief notes on Lipophilic parameters in drug design.	06 05 05
