

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM. - SEMESTER– VIII • EXAMINATION – SUMMER-2016

Subject Code: 280003

Date: 02/05/2016

Subject Name: Pharmaceutical Chemistry-X (Medicinal Chemistry)

Time: 10:30 AM to 1:30 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)	Write a note on Plasma expanders and Antiobesity drugs.	06
	(b)	Define and classify Antianginal agents with the synthesis of Isosobide dinitrate.	05
	(c)	Discuss various methods for optimization of lead compound.	05
Q.2	(a)	Define Molecular Modeling and write a note on application of Computer Aided Drug Design technique.	06
	(b)	Give the History and classification of Cardiotonic agents with synthesis of Dobutamine.	05
	(c)	Outline SAR of 3-Hydroxy 3-Methyl Glutaryl CoA reductase inhibitors	05
Q.3	(a)	Define QSAR and write a note on Hansch Linear Free Energy Relationship model.	06
	(b)	Give the synthesis of Lignocaine and Flecainide.	05
	(c)	Discuss the various factors which are affecting on blood coagulation and write a note on Warfarin.	05
Q.4	(a)	Define antihypertensive agents with its classification and write a note on calcium channel blockers.	06
	(b)	Discuss the role of combinatorial chemistry in new drug discovery.	05
	(c)	Outline SAR activity of 5-Sulfamoyl benzoic acid derivatives.	05
Q.5	(a)	What do you mean by Diuretics? Classify and give the synthesis of (i) Acetazolamide (ii) Dihydro flumethiazide	06
	(b)	Write a note on Thrombolytic agents.	05
	(c)	Give the mechanism of action and synthesis of Captopril.	05
Q. 6	(a)	What is Free Wilson Mathematical Model? Explain it.	06
	(b)	Give the SAR of Thiazide Diuretics.	05
	(c)	Discuss the role of Antiplatelet agents.	05
Q.7	(a)	Outline SAR activity of Dihydropyridines and give the synthesis of Nifedipine.	06
	(b)	Synthesis of (i) Ethacrinic acid (ii) Furosemide.	05
	(c)	Write a note on drugs that block sodium channels of myocardium to act as Antiarrhythmic agents.	05
