Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm. – SEMESTER – I • EXAMINATION – WINTER • 2015

Subject Code: 910201	Date: 02-01-2016
Subject Code: 910201	Date: 02-01-2010

Subject Name:	Chemistry	of Natural	Products
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Time, 10.30 am - 01.30 pm	Time: 10:30 am - 01:30 pm	Total Marks: 80
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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 configuration of monosaccharide. Prove the structure of glucose.	08
	(b)	Classify alkaloids with examples. Elucidate the structure of morphine.	08
Q.2	(a)	What are proteins? Classify proteins with examples.	06
•	(b)	Write short note on pectins.	05
	(c)	Give structure of following	05
	` /	1. 3H-Azepine	
		2. Benzo[c]pyridine	
		3. Imidazo[1,2-c]pyrimidine	
		4. Cinnoline	
		5. Isoxazole	
Q.3	(a)	Give sequence analysis of proteins with amino and carboxyl degradation.	08
	(b)	How will you convert aldose to ketose in carbohydrates?	04
	(c)	Write a short note on purines.	04
Q.4	(a)	Comment on following statements	06
		1. Imidazole is more basic than pyrazole.	
		2. Pyrole is more reactive for electrophilic substitution than furan.	
		3. Electrophile attack on 2 nd position in indole	
	(b)	Give chemistry of oxytocin.	05
	(c)	Give preparations of Isoquinoline.	05
Q.5	(a)	Explain following synthesis with mechanism	06
	` /	1. Skraup synthesis	
		2. Fischer indole synthesis	
	(b)	Give synthetic methods of polypeptides.	05
	(c)	Give orientation and reactivity of pyridine towards electrophiles.	05
Q. 6	(a)	Write a note on flavones and isoflavones.	06
	(b)	Give chemistry of cholesterol.	05
	(c)	What are steroids? Give in brief stereochemistry of steroids.	05
Q.7	(a)	Write a note on ergot alkaloids	06
	(b)	Give reactions of Pyrrole.	05

1. 5α - cholane

(c)

- 2. 5α -endrostane
- 3. 5β -pregnane
- 4. 5α-gonane
- 5. 5β -estrane

05

Give structure with numbering of following rigs.