

GUJARAT TECHNOLOGICAL UNIVERSITY
M. PHARM. - SEMESTER – I • EXAMINATION – WINTER 2012

Subject code: 910201**Date: 11/01/2013****Subject Name: Chemistry of Natural Products****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 carbohydrates? Prove ring structure of glucose.	06
	(b) Write a note on peptic substances.	05
	(c) What are polysaccharides? Write a note on heteropolysaccharides.	05
Q.2	(a) What are proteins? Classify them. Give any two methods of synthesis of amino acids.	06
	(b) Discuss the chemistry of angiotensin	05
	(c) Discuss in detail end group analysis.	05
Q.3	(a) What are alkaloids? Classify them.	06
	(b) Give general methods of degradation of alkaloids.	05
	(c) Prove the structure of ergotamine.	05
Q.4	(a) What are steroids? Discuss stereochemistry of steroids.	06
	(b) Discuss the chemistry of cholesterol.	05
	(c) Write a note on flavones and flavonoids.	05
Q.5	(a) What are heterocyclic compounds? Give the Hantzsch synthesis of pyridine.	06
	(b) Why furan, thiophene and pyrrole are aromatic? Give synthesis and reactions of thiophene.	05
	(c) Give the synthesis and reactions of pyrimidine.	05
Q. 6	(a) What are nucleic acids? Give the functions of RNA.	06
	(b) What are purines? Give brief account of purine and pyrimidine bases.	05
	(c) Discuss structure of DNA	05
Q.7	Write short notes on: a) SAR of glucocorticoids b) Lignin and pectins c) Podophyllum alkaloids	16
