Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY M. Pharm - SEMESTER - L. FYAMINATION - SUMMER-2016

11	vi. Fliarili Selviester - 1 · Examination – Summe	K-2010
Subject C	ode: 910201	Date: 30/05/2016

Subject Name: Chemistry of Natural Products
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) (b)	Discuss stereochemistry of steroids and SAR of glucocorticoids. What are steroids? Discuss the chemistry of cholesterol.	08 08
Q.2 (a)		What are heterocyclic compounds? Give method of synthesis and reactions of Imidazole and pyrimidine.	08
	(b)	Give following synthesis with reaction mechanism:	08
		1. Skraup synthesis	
		2. Hantzsch pyridine synthesis	
		3. Fischer-Indole synthesis	
Q.3	(a)	What are carbohydrates? Classify them with examples.	06
	(b)	Write a note on lignin and pectin.	05
	(c)	Discuss the structure of sucrose.	05
Q.4	(a)	Define flavones and flavanoids? Give biological importance of flavones and flavanoids.	06
	(b)	What are alkaloids? Classify them with suitable examples.	05
	(c)	Discuss the Chemistry of morphine.	05
Q.5	(a)	What are purines? Give brief account of purine and pyrimidine bases.	06
	(b)	What is nucleic acid? Give the structure and function of RNA.	05
	(c)	Define polypeptides? Give the methods of synthesis of polypeptide.	05
Q. 6	(a)	Define and classify proteins. Discuss the structure of proteins.	06
	(b)	Define and classify amino acids. Discuss any two synthesis methods of amino acid.	05
	(c)	Write a note on "Solid phase peptide synthesis"	05
Q.7	(a)	What are anthocyanins? Discuss general methods for the synthesis	06
		of anthocyanins.	
	(b)	Write a short note on Vinca alkaloids	05
	(c)	Discuss the structure and chemistry of oxytocin	05
