

GUJARAT TECHNOLOGICAL UNIVERSITY**M. Pharm. – SEMESTER – I • EXAMINATION – SUMMER • 2015****Subject code: 910201****Date: 25-05-2015****Subject Name: Chemistry of Natural Products****Instructions:****Total Marks: 80**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1	(a)	Classify and explain cyclic structure of monosaccharide. Elaborate oxidation reactions in monosaccharides.	06
	(b)	How will you distinguish between glucose and fructose?	05
	(c)	Write a note on pectin and pectin substances.	05
Q.2	(a)	Give the chemistry and biological activity of angiotensin.	06
	(b)	Write the method for the synthesis of alpha aminoacids and naturally occurring proteins.	05
	(c)	Write a note on solid phase synthesis of polypeptides.	05
Q.3	(a)	Discuss the chemistry of reserpine.	06
	(b)	Write a note on vinca alkaloids.	05
	(c)	Discuss briefly on podophyllum alkaloids.	05
Q.4	(a)	Discuss the structure determination of anthocyanins.	06
	(b)	What are anthocyanins? Give its example, functions and isolation.	05
	(c)	Write a note on flavones and describe with example.	05
Q.5	(a)	Give the general method of synthesis and reaction of quinoline and isoquinolines.	06
	(b)	Give two methods each for synthesis of thiophene and indole.	05
	(c)	Add a note on biological importance of heterocycles.	05
Q. 6	(a)	Write a short note on nucleic acids? Discuss purine and pyrimidine bases with their structures.	06
	(b)	Discuss the biosynthesis of Vitamin D3.	05
	(c)	Give the chemistry of cholic acid.	05
Q.7	(a)	Write a short note on Starch and cellulose.	06
	(b)	Write a short note on Lignin and pectin.	05
	(c)	Discuss with reaction mechanism of Fischer indole synthesis.	05
