Seat No.: _		Enrolment No		
	GUJARAT TECHNOLOGICAL UNIVERSITY			
	M.E –II st SEMESTER–EXAMINATION – JULY- 2012			
Subject code: 1723109			Date: 14/07/2012	
•	Subject Name: Introduction to Bioinformatics			
r r			Iarks: 70	
Instr				
		empt all questions. Re suitable assumptions wherever necessary.		
3.	Figures to the right indicate full marks.			
0.1	(.)		05	
Q.1	(a)	Explain with applications the word "Bioinformatics".	07	
	(b)	How computer science is helpful for Bioinformatics?	07	
Q.2	(a)	Describe the basic structure and function of amino acid.	07	
	(b)	Explain the structure and function of DNA.	07	
		OR		
	(b)	Explain the steps in cloning process.	07	
Q.3	(a)	Explain operators used in perl with example.	07	
	(b)	Explain the process of polymer chain reaction (PCR).	07	
		OR		
Q.3	(a)	Explain variables used in perl with example.	07	
	(b)	Explain the gene array experiment.	07	
Q.4	(a)	Mention the methods of alignment and explain dot-plots in detail.	07	
	(b)	Explain with example: Assignment operator	07	
		OR		
Q.4	(a)	Mention the methods of alignment and explain scoring matrices in detail.	07	
Q.4	(b)	Explain with example: chop.	07	
Q.5	(a)	Write a program to obtain m-RNA sequence from given DNA sequence.	07	
	(b)	Explain with example: grep.	07	
		OR		
Q.5	(a)	Write a program to concate two DNA sequences.	07	
	(b)	Explain with example: chmod.	07	
