Seat No.:

Enro	lment No.	
Lint	HHEHL INV.	

GUJARAT TECHNOLOGICAL UNIVERSITY MCA – SEMESTER-V • EXAMINATION – WINTER 2015

Subject Code: 650015 Date:10	Date:10/12/2015	
Subject Name: Bioinformatics		
Time:10.30 am to 01.00 pm Tot		
Instructions:		
1. Attempt all questions.		
2. Make suitable assumptions wherever necessary.		
3. Figures to the right indicate full marks.		
Q. 1 (a) Explain the first information age in biology in detail.	[07]	
(b) Describe Molecular central dogma with diagram	[07]	
Q. 2(a) Explain Data Annotation with its format.	[07]	
(b) Explain pairwise sequence comparison in detail	[07]	
OR		
(b) Explain motifs & profiles with examples.	[07]	
Q. 3 (a) Write a short note on:		
1. Genbank	[04]	
2. Gap penalty	[03]	
(b) Explain Blast algorithm in detail.	[07]	
OR		
(a) What is phylogenetic tree? Explain types of phylogenetic tree in deta	il. [07]	
(b) Explain protein resource database in detail.	[07]	
Q. 4 (a) Describe SCOP, CATCH & UNIQUE protein structured data set. [07]		
(b) How to judge the quality of information?	[07]	

(a) Define Data mining. Explain data mining techniques.		
(b) List out & explain the types of database.		
Q. 5 (a) Explain Swiss port, GV, Xgobi with examples.		
(b)Write a short Note on:		
1. PAM & BLOSUM	[04]	
2. CGI	[03]	
OR		
(a) List & explain all SQL commands in detail.		
(b) Explain Transcription of DNA with diagram.		