Seat No.: Enrolment No

GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VII EXAMINATION – WINTER 2015

Subject Code: 170406 Subject Name: Bioinformatics Time: 10:30am to 1:00pm Instructions: Date: 04/12/20 Total Marks:			
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Discuss the concept of comparative modeling giving all steps. Explain the terms: Continuous simulation and Discrete Simulation	07 07
Q.2	(a) (b)	Write down a note on any one of the specialized genome database. Discuss about the protein function prediction. OR	07 07
	(b)	How DNA Microarrays work? Discuss with applications.	07
Q.3	(a) (b)	Give the steps of GOR-IV and <i>Chou-Fasman</i> methods. Explain about the relationship of protein three dimensional structures with protein function.	07 07
Q.3	(a) (b)	OR Enlist any one database for each category of primary and secondary protein database with its features. Discuss the role of proteomics in bioinformatics.	07
Q.4	(a) (b)	Write a note on: Applications of Bioinformatics in medical filed Enlist the methods of building phylogenic trees. Give its merits and demerits over each other.	07 07
Q.4	(a) (b)	OR Discuss the components of modeling and simulation. What are the different ways for the alignment of pairs of sequences? Explain those only which virtues bioinformatics.	07 07
Q.5	(a) (b)	Discuss the role of molecular modeling in concluding right protein molecule. How does drug discovery process is supported by bioinformatics? OR	07 07
Q.5	(a) (b)	Briefly explain the objective and steps of computer aided drug design. Differentiate the boundaries of genomics for bioinformatics.	07 07
