

Name. _____		Printed Pages:01		
Student Admn. No.: _____				
School of Basic and Applied Sciences Backlog Examination, June 2023 [Programme: B.Sc. Medical Biotechnology] [Semester: II] [Batch:]				
Course Title: Fundamentals of Bioinformatics		Max Marks: 100		
Course Code: BBBMBT4002		Time: 3 Hrs.		
Instructions:	1. All questions are compulsory. 2. Assume missing data suitably, if any.			
		K Level	COs	Marks
SECTION-A (15 Marks)		5 Marks each		
1.	Differentiate between Local and Global Alignment.	K1/K2	CO1	5
2.	Compare and contrast UPGMA and Neighbor-Joining.	K1/K2	CO3	5
3.	Define RDBMS.	K1/K2	CO4	5
SECTION-B (40 Marks)		10 Marks each		
4.	Explain different types of DOTPLOT with an example.	K1/K2	CO4	10
5.	Give an example of multiple sequence alignment. Explain in detail.	K3/K4	CO5	10
6.	Throw light on Ramachandran's Plot.	K3/K4	CO2	10
7.	Describe in detail the types of protein structure. OR Throw light on COVID vaccines.	K3/K4	CO1	10
SECTION-C (45 Marks)		15 Marks each		
8.	Find out the Global Alignment performed upon two sequences of nucleotide as below: Sequence 1: ATGCTC Sequence 2: ACTCTG (Scoring: Match +1; Mismatch -1; Gap -2)	K3/K4	CO2	15
9.	What is Phylogeny? Explain with the help of a flow chart.	K5/K6	CO3	15
10	State the importance of bioinformatics. OR Identify and explain any three databases briefly.	K5/K6	CO4	15