Paper: BI-515 and BI517 Introduction to Bioinformatics & Biological Databases

CO1 Students will be able to distinguish between various types of biological data

T1 Write a short note on Proteins, Lipids, Carbohydrates, Nucleic Acids

A1 Write any five biological experiments and their outputs

Roll No	Test1	Assignment1	Total marks of attempted questions	Total Marks	Percentage	Score (3,2,1)	Target >= 60% (Y/N)
Marks	10	10	20	20			
25101	9	9	18	20	90	3	Y
25103	6	6	12	20	60	3	Y
25104	8	9	17	20	85	3	Y
25105	9	10	19	20	95	3	Y
25106	9	9	18	20	90	3	Y
					Average	**3**	

%age	score
>=60	3
50-59.9	2
40-49.0	1

CO2 Students will be able to experiment with biological data mining using various databases

PA1 Retrieve publications from PUBMED with title containing the term "CRISPR", published between between 2010 and 2022 and make a year-wise barchart

PA2 Search an experimental 3D structure for TP53 and download its sequence and 3D structure

Roll No	Practical Assignment1	Practical Assignment2	Total marks of attempted questions	Total Marks	Percentage	Score (3,2,1)	Target
Marks	10	10	20	20			
25151	10	9	19	20	95	3	Y
25152	10	10	20	20	100	3	Y
25153	8	8	16	20	80	3	Y
25154	9	8	17	20	85	3	Y
					Average	**3**	

CO3 Students will be able to classify various Bioinformatics databases

A1 List various primary, secondary and specialized data bases

Q2 Match the type of database from the given list of databases

Roll No	Assignment1	Q1	Total marks of attempted questions	Total Marks	Percentage	Score (3,2,1)	Target
Marks	10	5		15			
25151	10	5	15	15	100	3	Y
25152	10	4	14	15	93.33333333	3	Y

25153	8	4	12	15	80	3	Y
25154	9	5	14	15	93.33333333	3	Y
					Average	**3**	

CO4 Students will be able to know various database retrieval and deposition systems work

A1 Differentiate between SRS and ENTREZ

A2 Write short notes on Bankit, Seqin, Webin

Roll No	**Assignment1**	**Assignment2**	**Total marks of attempted questions**	**Total Marks**	**Percentage**	**Score (3,2,1)**	**Target**
Marks	10	10		20			
25151	9	9	18	20	90	3	Y
25152	9	9	18	20	90	3	Y
25153	6	5	11	20	55	2	N
25154	8	8	16	20	80	3	Y
					Average	**2.75**	

CO5 Students will differentiate between various formats of biological data and know which format is suitable for a particular application.

CA1 On the given sheet match the imortant features with the respective format

A1 Explain various sections of the Genbank and PDB format format

Roll No	**Class Activity 1**	**Assignment1**	**Total marks of attempted questions**	**Total Marks**	**Percentage**	**Score (3,2,1)**	**Target**
Marks	10	20		30			
25151	9	18	27	30	90	3	Y
25152	10	18	28	30	93.33333333	3	Y
25153	7	15	22	30	73.33333333	3	Y
25154	8	15	23	30	76.66666667	3	Y
					Average	**3**	