GALGOTIAS UNIVERSITY

ADMISSION NUMBER												

School of Biomedical Science

Bachelor of Science in Medical Biotechnology
Semester End Examination - Nov 2023

Duration : 180 Minutes
Max Marks : 100

Sem V -C2UH501T - Genomics and Proteomics

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	Name two Monogenic disorders.	K1	(2)
2)	Discuss PDB ID	K2	(4)
3)	Explain the process of SDS-PAGE with figure	K2	(6)
4)	Sketch the experimental outline of phage display with explanation.	K3	(9)
5)	Interpret how comparartive transcriptomics can help in designing better animal models.	K3	(9)
6)	Design a flow chart to determine differential gene expression.	K5	(10)
7)	Evaluate the significance of protein mass fingerprinting.	K4	(12)
8)	Support with rational argument the use of NGS over Sanger Sequencing	K5	(15)
9)	Construct the possible restriction maps and find the distance between two restriction sites using the given data: After double digestion of a linear DNA sequence with two restriction enzymes, R1 and R2, three DNA fragments of size 200 bp, 300 bp and 500 bp are obtained. Digestion with R1 reveals two DNA fragments of 200bp and 800 bp while two fragments of size 700 and 300 bp are obtained when the DNA sequence is digested with R2.	K5	(15)
10)	Design with appropriate diagrams the workflow for FISH with their applications.	K6	(18)