GALGOTIAS UNIVERSITY

ADMISSION NUMBER												

School of Biomedical Science

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

Duration : 180 Minutes
Max Marks : 100

Sem III - MBAMTT3007 - 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)	List the types of mutations implicated in genetic variation.	K1	(2)
2)	Discuss the importance of tracking dye in PAGE.	K2	(4)
3)	Explain the working principle of RT-PCR.	K2	(6)
4)	Explain allele specific nucleotide incorporation	K3	(9)
5)	Discuss the use of vectors in yeast two hybrid assay.	K3	(9)
6)	Examine the reasons behind diabetes type 2.	K5	(10)
7)	Compare effects of disease gene and susceptibility gene.	K4	(12)
8)	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)
9)	Defend the phage display technique.	K5	(15)
10)	Interpret how allele specific PCR can be used for detection of genetic mutation induced diseases.	K6	(18)