GALGOTIAS UNIVERSITY

ADMISSION NUMBER

School of Biomedical Science

Bachelor of Science in Medical Biotechnology
Semester End Examination - Jun 2024

Duration : 180 Minutes
Max Marks : 100

Sem IV - Q1UG402T - Recombinant DNA Technology Tools and Techniques

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)	What are the functional domains are necessary to get transcription in a two hybrid technology?	K1(2)
2)	Explain the meaning and importance of Alu elements.	K2(4)
3)	Explain the differences between lytic and lysogenic cycles.	K2(6)
4)	Illustrate the steps involved in Western blotting. Also describe the importance of the procedure.	K3(9)
5)	Explain how cDNA libraries are utilized in conjunction with yeast two-hybrid or phage display techniques to identify novel protein interactions or ligands.	K3(9)
6)	Elaborate what are SV40 vectors and different kinds of these vectors used commonly.	K5(10)
7)	Compare the process of phage transfection and release in single and double stranded phages.	K4(12)
8)	Examine the importance of phage display library as an important tool in protein- protein interaction studies.	K5(15)
9)	Examine the steps involved in northern blotting and compare them to southern blotting. Also explain the importance of each of these techniques.	K5(15)
10)	Elaborate the mechanism of action and significance of Methyltransferases and ligases.	K6(18)