

Name. _____		Printed Pages:01		
Student Admn. No.: _____				
School of Basic and Applied Sciences Backlog Examination, June 2023 [Programme: B.Sc. Med. Biotech] [Semester: II] [Batch: 21-24]				
Course Title: Red Biotechnology		Max Marks: 100		
Course Code: B180204T		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.	Explain the components of a biosensor on the basis of its working principle.	K1/K2	CO1	5
2.	What is the complement pathway and how it gets activated?	K1/K2	CO3	5
3.	Elaborate how genes can be regulated at different levels.	K1/K2	CO4	5
SECTION-B (40 Marks)		10 Marks each		
4.	What are the steps of performing transformation in lab?	K1/K2	CO4	10
5.	Explain in detail the large-scale production of citric acid.	K3/K4	CO5	10
6.	With the help of diagram explain the steps of cloning a gene.	K3/K4	CO2	10
7.	Identify the various methods of Enzyme immobilization highlighting their importance. OR Utilizing your knowledge about SPR technology, explain how will you judge binding of a protein to other.	K3/K4	CO1	10
SECTION-C (45 Marks)		15 Marks each		
8.	Organize the steps involved in the development and production of insulin by using recombinant DNA technology.	K3/K4	CO2	15
9.	Compare different kinds of vaccines produced.	K5/K6	CO3	15
10	Explain the sequence of events involved in expression of a gene in bacteria. How does it differ in a eukaryotic system? OR Explain in details how does the lac operon work in the bacteria? How is it exploited in cloning systems?	K5/K6	CO4	15