

Name. _____		Printed Pages:01		
Student Admn. No.: _____				
School of Biological & Life Sciences Summer Term Examination – July - August 2024 [Program: BSc (H) Microbiology] [Semester: II] [Batch:]				
Course Title: Fundamentals of Molecular Biology Course Code: C2UC301B		Max Marks: 100 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.	DNA replicates in a semi-conservative manner. Elaborate the statement with name of scientist.	K2	CO1	5
2.	Illustrate the Watson and Crick model of double helical DNA.	K2	CO1	5
3.	What are mutagens? Explain the process of mutagenesis.	K2	CO2	5
SECTION-B (40 Marks)		10 Marks each		
4.	Explain the structure of clover leaf model of a RNA.	K2	CO2	10
5.	Analyse the processes of elongation of DNA replication in prokaryotes.	K3	CO2	10
6.	Examine in detail about the post transcriptional modification in mRNA	K4	CO3	10
7.	Summarize the components of translation process.	K4	CO4	10
SECTION-C (45 Marks)		15 Marks each		
8.	Analyze the complete process of protein biosynthesis.	K4	CO4	15
9.	Analyse the regulation of gene expression using Trp operon model.	K4	CO4	15
10	Interpret why lac operon switches off in the absence of Lactose in E. coli.	K5	CO5	15