

Name. _____		Printed Pages:01			
Student Admn. No.: _____					
School of _____ Summer Term Examination – July - August 2024 [Programme: B.Sc. _____] [Semester: 4 _____] [Batch: _____]					
Course Title: Gene Technology And Human Welfare			Max Marks: 100		
Course Code: P1UC403B			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.	What are plasmids? What is the importance of plasmids for the recombinant DNA technology?			5	
2.	How does germplasm conservation contribute to the preservation of genetic diversity in plant and animal species?			5	
3.	Explain the nomenclature of restriction Endonuclease with example.			5	
SECTION-B (40 Marks)		10 Marks each			
4.	What are vectors in the context of gene manipulation? Provide examples of commonly used vectors.			10	
5.	Elaborate the role of pharmacogenetics and pharmacogenomics in improving translational medicine			10	
6.	Explain the various methods of gene transfer.			10	
7.	How has recombinant DNA technology revolutionized various fields such as medicine, agriculture, and biotechnology?			10	
SECTION-C (45 Marks)		15 Marks each			
8.	What is the process of creating transgenic plants, and what tools and techniques are commonly used in this process?			15	
9.	Explain the process of N ₂ fixation in agriculture.			15	
10	Discuss the importance of the interaction between plants and microbes in agricultural ecosystems.			15	