Enrolln	nent No:C. U. SHAH I	Exam Seat No: JNIVERSITY					
Winter Examination-2022							
Subject Name: Microbial Genetics and Molecular Microbiology							
Subject Code: 5SC03MIG1 Branch: M.Sc. (I			ology)				
Semeste	er: 3 Date: 21/11/2022	Time: 11:00 To 02:00	Marks: 70				
 Instructions: (1) Use of Programmable calculator and any other electronic instrument is prohibited. (2) Instructions written on main answer book are strictly to be obeyed. (3) Draw neat diagrams and figures (if necessary) at right places. (4) Assume suitable data if needed. 							
Q-1	SECTI Attempt the Following questions	ON – I	(07)				
	 a. Define: Crossing over. b. What is complementation test? c. Full form of HFR. d. Define Induced mutation. e. Define Phage. f. Give a brief about Ti Plasmid. g. Define Suppressor mutation. 						
Q-2	Give detailed note on Complementa	ation test.	(14) 07 07				
Q-2			(14) 07 07				
Q-3	Attempt all questions		(14)				

	Α	Details note on Lytic and Lysogenic cycle of Lambda Phage.	07
	В	Give detailed note on Complementation test.	07
		OR	
Q-2		Attempt all questions	(14)
	A	Write a detail note on Mitosis.	07
	В	Write in detail on Base excision repair mechanism.	07
Q-3		Attempt all questions	(14)
	A	Explain details on Lytic cycle of T4 bacteriophage.	07
	В	Write on Linkage and crossing over.	07
		OR	
Q-3	A	Write a details note on transposons.	07
	В	Explain: Lac Operon.	07
		SECTION – II	

a. Define Transposons.

Attempt the Following questions

Q-4



(07)

		f. Define Linkage.	
	,	g. What is Spontaneous mutation?	
Q-5		Attempt all questions	(14)
	A	Write note on Mapping bacterial gene by specialized transduction.	07
	В	Explain: Meiosis.	07
		OR	
Q-5			
	A	Explain: Gal Operon.	07
	В	Give details on Recombination and Recombination Frequency.	07
Q-6		Attempt all questions	(14)
	A	Write note on Ti Plasmid and its applications.	07
	В	Explain: Trp Operon.	07
		OR	
Q-6		Attempt all Questions	
	A	Give details on Phage variation system in Salmonella.	07
	В	Write on Molecular mechanism of gene transfer by conjugation.	07

b. What is Competence?

c. What is Competence.d. Define zygotene stage.e. In which stage crossing over happens in a meiosis?

