<b>Enrollment No:</b>	Exam Seat No:
	C. U. SHAH UNIVERSITY

Winter Examination-2021

**Subject Name: Microbial Genetics** 

Subject Code: 4SC03MIG1 Branch: B.Sc. (Microbiology)

Semester: 3 Date: 14/12/2021 Time: 02:30 To 05:30 Marks: 70

## **Instructions:**

- (1) Use of Programmable calculator & 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		Attempt the following questions:	(14)
	a)	Write full form of HFR.	01
	<b>b</b> )	Define :- Transduction	01
	c)	What is Ti Plasmid?	01
	d)	What is gene mapping?	01
	e)	Enlist the steps of Lytic Cycle.	01
	f)	What is transposition?	01
	g)	What is competent cell?	01
	h)	Write full form of IS	01
	i)	Define:- Mutagen	01
	j)	Give the example of Lysogenic Phage.	01
	k)	Define – Conjugation	01
	1)	What is Bacteriophage?	01
	m)	Define- R Plasmid.	01
	n)	Ti Plasmid present in which organism?	01
Attemp	ot any	four questions from Q-2 to Q-8	
Q-2		Attempt all questions	(14)
	a	Write a detail note on Generalized Transduction.	07
	b	Explain Ames Test.	07
Q-3			(14)
		Write a detail note on Conjugation.	, ,
Q-4		Attempt all questions	(14)
	a	Write down genetic basis of Lytic verses Lysogenic Switch of phage lambda.	07
	b	Write a note on Composite & Non composite Transposon.	07



Q-5		Attempt all questions	(14)
	a	Write a note genome organization in <i>E.coli</i>	07
	b	Write a detail note on specialized Transduction.	07
Q-6			(14)
		What is plasmid? Write a detail note on types of plasmid.	
Q-7		Attempt all questions	(14)
	a	Write a note on Physical & Chemical Mutagen.	07
	b	Write a detail note on Plasmid Replication	07
Q-8		Attempt all questions	(14)
	a	Write a note on replicative & Non replicative Transposition.	07
	b	Write a detail note on Ti plasmid.	07

