Enrollment No: _____ Exam Seat No: _____ C. U. SHAH UNIVERSITY Winter Examination-2021

Subject Name: Discipline Specific Elective-II (Microbial Biotechnology)

Subject	Code	e: 4SC05MBT1	Branch: B.Sc. (Microbiolo	ogy)
Semeste	r: 5	Date: 13/12/2021	Time: 11:00 To 02:00	Marks: 70
(2)] (3)]	Use o Instru Draw	of Programmable calculator & any of actions written on main answer book r neat diagrams and figures (if necess me suitable data if needed.	are strictly to be obeyed.	rohibited.
Q-1		Attempt the following questions:		(14)
	a) b) c)	Write full form of PGPR. rDNA deals with cutting and joining of Define Microbial Biotechnology	f DNA molecules. True/False	
	d)	What is RNAi?		
	e) f) g) h)	What do you mean by xenobiotics? Bt gene is used in insect control. True/ Copy rights cannot be transferred from List out the types of Intellectual Pro-	one party to another party. True	/False
	l) m)	The use of microorganisms to consume pollutants is known as What is bioremediation? Yeast is a prokaryotic organism. True/I Give any one application of prokary Define Copyright What are biosensors?	False	
Attempt	any	four questions from Q-2 to Q-8		
Q-2	a.	Attempt all questions Write Brief note mechanism of Bio bioleaching.	pleaching with commercial pr	(14) rocess of (7)
	b.	What are Biopesticides? Explain their	role in modern biotechnology	(7)



Q-3	a.	Attempt all questions Write detail note on Copyright & Patent	(14) (6)
	b. с.	Write short note on Microbial biosensors Explain the role of microbes in bioremediation	(4) (4)
Q-4	a.	Attempt all questions Write detail note on Scop of Microbial Biotechnology	(14) (7)
	b.	Use of prokaryotic and eukaryotic microorganisms in biotechnological applications	(7)
Q-5	a	Attempt all questions What is mineral recovery? Give short note on removal of heavy metals	(14) (7)
	b.	from aqueous effluents. Give short note on Production of Bioethanol from lignocellulosic waste and algal biomass.	(7)
Q-6	a. b.	Attempt all questions Give short note on applications of RNAi in silencing genes, Give short note on Methane and hydrogen production using microbial culture.	(14) (7) (7)
Q-7	a. b.	Attempt all questions Write short note on Trademark Give sort note on Microbial based transformation of steroids and sterols,	(14) (7) (7)
Q-8	a.	Attempt all questions Give short note on recombinant microbial production processes in pharmaceutical industries.	(14) (7)
	b.	Give short note on Mycorrhizae	(7)

