____ **C.U.SHAH UNIVERSITY Summer Examination-2016**

	Subject Name : Genetic Engineering Subject Code : 4SC04GEE1			Branch: B.Sc.(Biotechnology)		
	Semester	::4	Date : 12/05/2016	Time : 02:30 To 05:30	Marks : 70	
	(2) I (3) I	Use of Painstruction Draw near	ons written on main answ	t any other electronic instrum er book are strictly to be obe f necessary) at right places.		
Q-1	Attempt the following questions:					
	a)	Define	genetic engineering.			1
	b)		are restriction enzymes?			1
	c)		are endonuclease enzymes	\$?		1
	d)		s role of SDS in DNA iso			1
	e)	Write 1	name of components requ	ired in PCR process.		1
	f)		s main difference between			1
	g)	Define	recombinant proteins.			1
	h)		plasmid.			1
	i)	Draw t	he diagram of pUC ¹⁹ plas	mid.		1
	j)	Define	gene cloning.			1
	k)		s LAC operon?			1
	l)		vectors, which can be use	-		1
	m)		striction digestion of DNA onstuct a genetic map base	A following sequences were f ed on above data.	found. Ab, dcf, fe,	1
	n)		s cDNA?			1
Atte	mpt any f	our que	estions from Q-2 to Q-8			
Q-2			pt all questions a note on gene cloning and	d its applications in detail		(14) 14

Q-3 Attempt all questions (14) Explain process of bacterial DNA purification Α 7 Write a note on gene manipulation in DNA B 7

Page 1 || 2



Q-4		Attempt all questions		
	Α	Explain types of restriction enzymes in detail.	7	
	В	Describe DNA and RNA markers.		
Q-5		Attempt all questions	(14)	
-	Α	Explain modification enzymes and their role in gene manipulation.	7	
	В	Explain any one plasmid in detail with diagram.	7	
Q-6		Attempt all questions		
-	Α	Explain "Blue-white colony selection" method.	7	
	В	Explain Polymerase chain reaction in detail.	7	
Q-7		Attempt all questions	(14)	
L.	Α	Explain AFLP in detail with process diagram.	7	
	В	Explain any one nucleic acid sequencing method in detail with diagram.	7	
Q-8		Attempt all questions		
•	Α	Explain process of production Insulin from E.Coli.	(14) 7	
	В	Write a note on gene therapy with one example.	7	



