Enrollment No: Exam Seat No:

C.U.SHAH UNIVERSITY

Winter Examination-2018

Subject Name : Genetic Engineering and Biotechnology

Subject Code : 4SC03GEB1 Branch: B.Sc. (Microbiology)

Semester: 3 Date: 01/12/2018 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)	Define : Genetic Engineering.	(1)
	b)	PCR was invented by Karry Mullis. True/false.	(1)
	c)	What is Blotting?	(1)
	d)	had coined the term Genetics.	(1)
	e)	Give any two examples of Biological means of Transformation.	(1)
	f)	is the ideal length of oligonucleotide primers.	(1)
	g)	State ant two functions of DNA.	(1)
	h)	Define : Intellectual Property.	(1)
	i)	GMO stands for	(1)
	j)	Define: Recognition Sequence.	(1)
	k)	Golden rice contain beta carotene gene. True/false.	(1)
	1)	PEG stands for	(1)
	m)	What are Palindromic Sequences.	(1)
	n)	Give any two examples of physical means of Transformation.	(1)
Atten	npt any	four questions from Q-2 to Q-8	
Q-2		Attempt all questions	(14)
	a)	Write a note on overall basic process or steps of rDNA Technology.	(7)
	b)	What is Sothern Blotting? Describe steps and application in detail.	(7)
Q-3		Attempt all questions	(14)
	a)	What are plasmids? Explain with example of pBR322 vector.	(7)
	b)	Write a short note on Bacteriophage.	(7)
Q-4		Attempt all questions	(14)
	a)	What are characteristics features of a Cloning Vector?	(4)
	b)	Write a short note on DNA Sequencing and different methods.	(7)



	c)	What are components of PCR?	(3)
Q-5		Attempt all questions	(14)
	a)	What is Copyright? Describe in detail.	(7)
	b)	Write in brief about Restriction Enzymes and its Types and Applications.	(7)
Q-6		Attempt all questions	(14)
	a)	Detail note on various Applications of Genetic engineering.	(7)
	b)	What is Patent? Describe in detail.	(7)
Q-7		Attempt all questions	(14)
_	a)	Write a short note on methods of chemical means of Transformation.	(6)
	b)	What are disadvantages of Genetic engineering?	(3)
	c)	Write a short note on PCR.	(5)
Q-8		Attempt all questions	(14)
-	a)	Write a short note on methods of physical means of Transformation.	(7)
	b)	Differentiate between PCR and DNA replication.	(3)
	c)	Write about applications of PCR.	(4)

