C.U.SHAH UNIVERSITY

Summer Examination-2019

Subject Name : Genetic Engineering and Biotechnology

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

Semester: 3 Date: 15/03/2019 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: Recombinant DNA.	(1)
	b)	BT cotton is an example of rDNA product. True/false.	(1)
	c)	What is Western Blotting?	(1)
	d)	invented PCR.	(1)
	e)	Give any two examples of physical means of Transformation.	(1)
	f)	DNA is positively charged. True/false.	(1)
	g)	Give any two examples of expression vector.	(1)
	h)	What is use of Restriction enzyme in cloning?	(1)
	i)	What are palindromic sequences?	(1)
	j)	Ligase is used for joining gene fragments. True/false	(1)
	k)	Define : Transformation	(1)
	l)	Give any two examples of things getting copyrights.	(1)
	m)	Differentiate sticky and blunt ends.	(1)
	n)	Human can be patented. True/false	(1)
Atten	npt any f	Cour questions from Q-2 to Q-8	
Q-2		Write Short note on -	(14)
	a)	PCR and its types.	(7)
	b)	SDS-PAGE	(7)
Q-3		Attempt all questions	(14)
	a)	Write in detail about applications of genetic engineering.	(7)
	b)	Explain copyright and trade mark in details.	(7)
Q-4		Write Brief notes on -	(14)
	a)	Chemical method of transformation.	(7)
	b)	DNA modifying Enzymes	(7)



Q-5		Write Short notes on -	(14)
	a)	Types of Restriction Enzymes.	(7)
	b)	Electroporation and Genegun.	(7)
Q-6		Attempt all questions	(14)
	a)	Explain characteristics of Plasmids with example of pBR322 vector.	(7)
	b)	Write a brief note on DNA sequencing methods.	(7)
Q-7		Write Short notes on -	(14)
	a)	Patent	(7)
	b)	Southern Blotting	(7)
Q-8		Attempt all questions	(14)
	a)	Give principle and methodology of agarose gel electrophoresis.	(7)
	h)	Explain characteristics of expression vector with an example	(7)

