Enrollment No:	Exam Seat No:
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## C.U.SHAH UNIVERSITY

## **Summer Examination-2018**

**Subject Name: Genetic Engineering and Biotechnology** 

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

Semester :3 Date : 26/03/2018 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)	S1 is a type of nuclease enzyme. True/False	1
	<b>b</b> )	Write full form of PCR.	1
	<b>c</b> )	EcoRI is a type of ligase enzyme. True/False	1
	<b>d</b> )	Write full form of dATP.	1
	e)	Write full form of WIPO.	1
	f)	Taq DNA polymerase is used in DNA amplification. True/False	1
	<b>g</b> )	Write full form of NGS.	
	<b>h</b> )	T7 is a type of promoter. True/False	1
	i)	Write full form of SDS-PAGE.	1
	<b>j</b> )	Bt gene has come from virus. True/False	1
	<b>k</b> )	Write full form of pUC.	1
	1)	Copyright is a type of fundamental right. True/False	1
	m)		1
	n)	YAC is a type of plasmid. True/False	1
Q-2		Attempt all questions	(14)
<b>~</b> -	$\mathbf{A}$	What is PRC? Explain the various steps of PCR.	7
	В	Briefly explain the technique of Southern Blotting.	7
Q-3		Write short notes on-	(14)
	$\mathbf{A}$	Trademarks	7
	В	Western Blotting	7
Q-4		Attempt all questions	(14)
∢ .	A	What is Plasmid? Explain the important properties of a good plasmid.	2+5
	В	What do you mean by patents? Explain patent are different than copyright.	2+5 2+5



Q-5		Attempt all questions	(14)
	$\mathbf{A}$	What is biolistic? Explain its mode of action.	7
	В	Briefly explain SDS-PAGE.	7
Q-6		Attempt all questions	(14)
	A	What do you mean by Agrobacterium-mediated gene delivery? Explain it with suitable example.	7
	В	Explain the process of Gene Cloning by plasmid in bacteria.	7
Q-7		Write short notes on-	(14)
	$\mathbf{A}$	Restriction digestion	7
	В	Recombinant vaccines	7
Q-8		What is gene therapy? Explain the process of gene therapy in human with suitable examples.	(14)

