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

Summer Examination-2016

Subject Name: Ecology and Evolutionary Biology

Subject Code: 4SC06EEB1 Branch: B. Sc.(Microbiology)

Semester: 6 Date: 04/05/2016 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 autecology.	1
	b)	Who described role of germ cells in evolution?	1
	c)	Define Darwin's theory of natural selection in one sentence?	1
	d)	Define Mutualism.	1
	e)	Define process of forming water.	1
	f)	What is the area of Ionosphere?	1
	g)	Give example of microconsumers.	1
	h)	What is time period of travel by Darwin in HMS Beagle?	1
	i)	What is the observation of Thomas Malthus, describe in one sentence?	1
	j)	What is Speciation?	1
	k)	Who proposed theory of germ plasm?	1
	1)	Name scientists who synthesized biomolecules for first time in laboratory?	1
	m)	What is the equation of Hardy-Weinberg?	1
	n)	New species arise when population is isolated. True or False?	1
Atten	ipt any f	our questions from Q-2 to Q-8	
Q-2		Attempt all questions	(14)
	\mathbf{A}	Briefly describe Experiment of Urey and Miller.	7
	В	Write a short note on Germ Plasm Theory.	7
Q-3		Attempt all questions	(14)
•	\mathbf{A}	Write a note on Lamarckism.	7
	В	Write an essay on theory of natural selection.	7
Q-4		Attempt all questions	(14)
• -	A	Write a note on Hard-Weinberg Equilibrium.	7
	В	Describe process of genetic drift, Gene flow by appropriate example.	7

Q-5		Attempt all questions	(14)
	\mathbf{A}	Enlist limiting Five conditions for not evolving new genotype frequency.	5
	В	Define importance of mutation for evolution of new species.	5
	C	How Sexual selection influenced the population and evolution of new species.	4
Q-6		Attempt all questions	(14)
	\mathbf{A}	Describe Speciation with appropriate examples.	7
	В	Explain in brief theories of origin of life.	7
Q-7		Attempt all questions	(14)
_	\mathbf{A}	Discuss various functions of Ecosystem.	7
	В	Write a note on environment and briefly explain various factors.	7
Q-8		Attempt all questions	(14)
_	\mathbf{A}	Write a note on temperature factor and explain its effect on metabolism,	7
		Coloration and morphology.	
	В	Explain Topological factor of environment.	7



