Seat No.:	Enrolment No.

Subject code: 130401

GUJARAT TECHNOLOGICAL UNIVERSITY

Date: 07-01-2013

B. E. - SEMESTER – III • EXAMINATION – WINTER 2012

Subj	ect l	Name: Introductory Biology	
Time	e: 10	0.30 am – 01.00 pm Total Marks	: 70
Instr	uct	ions:	
	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary.	
	4.	Figures to the right indicate full marks.	
Q.1	(a)	diagram.	07
	(b)	Write an explanatory note on biological nitrogen fixation.	07
Q.2	(a)	<u>.</u>	07
	(b)	Draw neat diagram of human heart with all the labellings. OR	07
	(b)	_	07
Q.3	(a)	What do you understand by 'control experiment'? Explain how control experiment helped Louis Pasteur to put the concept of spontaneous origin of life to rest.	07
	(b)	Define the terms macronutrient, micronutrient.	04
	(c)	Explain any three disorders arising due to deficiency of vitamins. OR	03
Q.3	(a)	Write about any three career-options in biology according to your order of preference.	07
	(b)	•	04
	(c)	Differentiate between autotrophic and heterotrophic nutrition.	03
Q.4	(a)	Explain the Miller's Experiment to prove the origin of life in the simulated primeval atmosphere.	07
	(b)	Discuss Lamarck's theory of evolution and state its various propositions.	07
0.4		OR	
Q.4	(a)	•	07
	(b)	Explain Replica plating technique and its utility.	07
Q.5	(a)	Comment on the regions of roots in flowering plants.	07
	(b)	How is the study of plant anatomy useful to us? OR	07
Q.5	(a)	_	07
ζ	(b)		07

1/1