

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III • EXAMINATION – WINTER • 2014

Subject Code: 2130401

Date: 20-12-2014

Subject Name: Introductory Biology

Time: 02.30 pm - 05.00 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1	(a)	Define death. Mention the biological significance of death.	07
	(b)	Give the scopes of biology.	07
Q.2	(a)	Explain the terms: Hypothesis, Observation. Give its interrelation.	07
	(b)	Summarize a note on Biology in ancient India.	07
		OR	
	(b)	What is the contribution of Aristotle? How did it help society?	07
Q.3	(a)	Give a schematic representation of the levels of biological organization and their related branches of science.	07
	(b)	How energy flows in biological systems?	07
		OR	
Q.3	(a)	Describe various types of plant tissues.	07
	(b)	Define genetic drift. How does it produce founder effect and genetic bottleneck?	07
Q.4	(a)	What is growth? How growth is related to metabolism?	07
	(b)	What is meant by the term evolution? Distinguish between cosmic evolution and organic evolution.	07
		OR	
Q.4	(a)	Draw human heart with labelled diagram.	07
	(b)	What are the macro and micro nutrients of plants? Give role of each of them.	07
Q.5	(a)	Discuss parts of human brain with its function.	07
	(b)	Write a note on: dispersal of fruits and seeds.	07
		OR	
Q.5	(a)	Discuss the fundamental functions of Human nervous system and Human endocrine system.	07
	(b)	Explain the modes of nutrition in animals and narrate nutritional deficiency disorders.	07
