

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V • EXAMINATION – WINTER 2013

Subject Code: 150405

Date: 09-12-2013

Subject Name: The Science of Life

Time: 10.30 am - 01.00 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) Differentiate between prokaryotic and eukaryotic organization. **07**
(b) Write a detail note on prokaryotic cell structure and function. **07**
- Q.2** (a) Discuss about the plant cell structural architecture. **07**

(b) Explain the process of evolution and origin of life. **07**
- OR**
- (b) Discuss about various organelles present in eukaryotic cell. **07**
- Q.3** (a) Give detail account on polysaccharides. **07**
(b) Describe about physical properties of amino acids. **07**
- OR**
- Q.3** (a) Write a note on types of nucleic acid. **07**
(b) Discuss in detail about classification of lipids. **07**
- Q.4** (a) Comment on statement- DNA replication is semi conservative. **07**
(b) What is the mechanism of transcription in prokaryotes? **07**
- OR**
- Q.4** (a) Enlist and explain about types of RNAs. **07**
(b) Differentiate between innate and adaptive immunity with example. **07**
- Q.5** (a) Define and explain the process of hematopoiesis. **07**
(b) Give detail account on antigen. **07**
- OR**
- Q.5** (a) Classify the types of antibody according to structure and biological functions. **07**
(b) Write a note on primary lymphoid organs. **07**
