Seat No.:	Enrolment No.
Jeal 110	Lindincit 110.

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. 0.1 (a) Differentiate between prokaryotic and eukaryotic organization. **07 (b)** Write a detail note on prokaryotic cell structure and function. 07 (a) Discuss about the plant cell structural architecture. **Q.2** 07 07 **(b)** Explain the process of evolution and origin of life. OR **(b)** Discuss about various organelles present in eukaryotic cell. 07 (a) Give detail account on polysaccharides. 0.3 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** 0.4 (a) Comment on statement- DNA replication is semi conservative. **07 (b)** What is the mechanism of transcription in prokaryotes? 07 OR **Q.4** Enlist and explain about types of RNAs. 07 **(b)** Differentiate between innate and adaptive immunity with example. 07 **Q.5** Define and explain the process of hematopoisis. **07** Give detail account on antigen. 07 **(b)** OR **Q.5** Classify the types of antibody according to structure and biological functions. (a) **07** Write a note on primary lymphoid organs. **07**
