

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-V • EXAMINATION – SUMMER • 2015

Subject Code: 150405**Date: 15/05/2015****Subject Name: The Science of Life****Time: 02.30pm-05.00pm****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) Draw a labeled diagram of eukaryotic cell **07**
(b) Explain conservative and semi-conservative model of DNA replication. **07**
- Q.2** (a) What is active and passive immunity? **07**
(b) What are the cellular components of immune system? **07**
- OR**
- (b) Explain in short about lymphoid cells. **07**
- Q.3** (a) What is difference between immunogenicity and antigenicity? **07**
(b) Draw labeled diagram of Antibody. **07**
- OR**
- Q.3** (a) What is allergy? Give some examples. **07**
(b) Write short note on hematopoiesis. **07**
- Q.4** (a) What are monosaccharides? Classify monosaccharides into different types. **07**
(b) Give biological significance of lipids. **07**
- OR**
- Q.4** (a) Explain primary and secondary structure of proteins. **07**
(b) What are the basic components of nucleic acid? **07**
- Q.5** (a) What are the enzymes involved in prokaryotic replication? **07**
(b) With the help of neat diagram explain the structure of DNA. **07**
- OR**
- Q.5** (a) What are the types and characteristics of genetic code? **07**
(b) What are the post transcriptional modifications of mRNA? **07**
