

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V • EXAMINATION – SUMMER 2013****Subject Code: 150405****Date: 23-05-2013****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) Write a short note on polysaccharides with examples. **07**
(b) Explain classification of protein based on structure. **07**
- Q.2** (a) Explain the term antibody. Write in detail structure of it. **07**
(b) Discuss post transcriptional modification of tRNA. **07**
- OR**
- (b) Write initiation process of replication in prokaryotes with neat diagram. **07**
- Q.3** (a) Give a detail account on translation in prokaryotes. **10**
(b) Describe wobble hypothesis. **04**
- OR**
- Q.3** (a) Discuss transcriptional process in eukaryotes. **10**
(b) Enlist properties of genetic code. **04**
- Q.4** (a) Write a detail account on origin of life, how multicellular organisms evolved? **07**
(b) Differentiate the term adaptive immunity and innate immunity **07**
- OR**
- Q.4** (a) Define and differentiate following terms with brief explanation **07**
• Prokaryotes
• Eukaryotes
- Q.4** (b) Give a detail account on cell. **07**
- Q.5** (a) Explain in brief mechanism of inflammation. **07**
(b) Discuss various component of immune system **07**
- OR**
- Q.5** (a) Describe in detail about haematopoiesis. **07**
(b) Define the term antigen. Differentiate between antigenicity and immunogenicity **07**
