

**GUJARAT TECHNOLOGICAL UNIVERSITY****B. E. Sem. - V - Examination – June- 2011****Subject code: 150405****Subject Name: The Science of Life****Date: 30/06/2011****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.

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|------------|---|-----------|
| <b>Q.1</b> | (a) Give Classification of Monosaccharide.                              | <b>07</b> |
|            | (b) Write a short note on classification of lipids.                     | <b>07</b> |
| <b>Q.2</b> | (a) Enlist different types of immune cells. Explain any four in detail. | <b>07</b> |
|            | (b) Write a short note on spleen.                                       | <b>07</b> |
|            | <b>OR</b>   |           |
|            | (b) Write a short note on Lymph node.                                   | <b>07</b> |
| <b>Q.3</b> | (a) Write a short note on Translation in Prokaryotes.                   | <b>10</b> |
|            | (b) Explain Polysaccharides.  | <b>04</b> |
|            | <b>OR</b>   |           |
| <b>Q.3</b> | (a) Write a short note on Transcription in Eukaryotes.                  | <b>10</b> |
|            | (b) Explain the Properties of genetic code.                             | <b>04</b> |
| <b>Q.4</b> | (a) Explain DNA and RNA in detail.                                      | <b>07</b> |
|            | (b) Explain classification of proteins on the basis of its structure.   | <b>07</b> |
|            | <b>OR</b>   |           |
| <b>Q.4</b> | (a) Write a note on enzymology of eukaryotic replication.               | <b>07</b> |
|            | (b) Write a short note on Structure of t-RNA.                           | <b>07</b> |
| <b>Q.5</b> | (a) Describe different classes of Immunoglobulins.                      | <b>06</b> |
|            | (b) Draw a diagram of typical animal cell.                              | <b>05</b> |
|            | (c) Differentiate between plant and animal cell.                        | <b>03</b> |
|            | <b>OR</b>   |           |
| <b>Q.5</b> | (a) Write a short note on autoimmune disease with a suitable example.   | <b>06</b> |
|            | (b) Draw a diagram of typical plant cell.                               | <b>05</b> |
|            | (c) Differentiate between prokaryotic and eukaryotic cell.              | <b>03</b> |

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