

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEM-V Examination-Nov/Dec.-2011

Subject code: 150405

Date: 03/12/2011

Subject Name: The Science of Life

Time: 2.30 pm -5.00 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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|------------|--|-----------|
| Q.1 | (a) Explain mechanism of replication in prokaryotes. | 10 |
| | (b) Write a short note on RNA. | 04 |
| Q.2 | (a) What are monoclonal antibodies? Describe method for its production. | 07 |
| | (b) Enlist secondary lymphoid organs and explain any one in detail. | 07 |
| | OR | |
| | (b) Draw a chart showing hematopoietic system. | 07 |
| Q.3 | (a) Write a short note on Transcription in Eukaryotes. | 10 |
| | (b) Write a short note on optical isomerism | 04 |
| | OR | |
| Q.3 | (a) Write a short note on Transcription in Prokaryotes. | 10 |
| | (b) Explain the Properties of genetic code. | 04 |
| Q.4 | (a) Explain processing of m-RNA. | 07 |
| | (b) Give structural classification of protein. | 07 |
| | OR | |
| Q.4 | (a) Explain initiation process of translation in prokaryotes. | 07 |
| | (b) Write a short note on Structure of t-RNA. | 07 |
| Q.5 | (a) Write a note on enzymology of eukaryotic replication. | 06 |
| | (b) Write a short note on Asthma and allergy | 05 |
| | (c) Differentiate between active and passive immunity | 03 |
| | OR | |
| Q.5 | (a) Write a short note on innate component of immune system. | 06 |
| | (b) Write a short note on immunodeficiency. | 05 |
| | (c) Differentiate between innate and adaptive immunity. | 03 |
