Seat No.: _____    Enrolment No._____

# GUJARAT TECHNOLOGICAL UNIVERSITY
## BE - SEMESTER–III • EXAMINATION – WINTER • 2014

**Subject Code: 131303**                    **Date: 18-12-2014**
**Subject Name: Ecology and Remote Sensing**
**Time: 02.30 pm - 05.00 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) What is GIS? Discuss in detail | **07** |
| | (b) Enlist the applications of Remote sensing | **07** |
| **Q-2** | (a)Why the concept of Limiting Factors so important? Discuss Shelforld's and Liebig's Laws in this Context. | **07** |
| | (b) What is Climograph? Explain it and Draw Diagram. | **07** |
| | OR | |
| | (b) What is Ecology? Enlist the Objective of Ecology. | **07** |
| **Q-3** | (a) Explain Malthusian Theory of Population. | **07** |
| | (b)Enlist the method of Population Estimation and Explain any two in Detail. | **07** |
| | OR | |
| **Q-3** | (a) Write a Short note on Photograph and image. | **07** |
| | (b) Explain Elements of Visual image Interpretation. | **07** |
| **Q-4** | (a) Write a Short note on Dominance Hierarchy. | **07** |
| | (b) Discuss in Brief "territorialism". | **07** |
| | OR | |
| **Q-4** | (a) Why ground truth is important in Remote sensing. | **07** |
| | (b) Write a Brief note on GPS. | **07** |
| **Q-5** | (a) Describe Spatial Resolution? What does the mean of Resolution and Low Resolution image? | **07** |
| | (b) Write a short note on Indicator Organisms. | **07** |
| | OR | |
| **Q-5** | (a) Difference Between Predation and Parasitism. | **07** |
| | (b) How Remote Sensing is useful in Environmental engineering field? Discuss in brief. | **07** |

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