Seat No.: Enrolment No.
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## **GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE - SEMESTER-IV(New) • EXAMINATION - WINTER 2016** 

Subject Code:2141305 Date:23/11/2016

**Subject Name: Ecology and Remote Sensing** 

Time: 02:30 PM to 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.

Q.1	1 2 3 4 5 6 7 8 9 10 11 12 13	Short Questions Define Ecology. Define Population. Define Mutualism. Define Parasitism. What is Indicator organism? Define Amensalism. Define Antibiosis. Define Scale of photograph. What is Digitization? Define Remote Sensing. What is Photograph? What is Image? Define GPS. Define GIS.	14
Q.2	(a) (b) (c)	Enlist various Limiting factors for species. Enlist various objectives of ecological study. Explain Climagraph with neat sketch.	03 04 07
	(c)	OR State and Explain Shelford's law and Liebigs law.	07
Q.3	(a) (b) (c)	What is dominance hierarchy? Give any two examples of indicator organism. How pollution can affect tolerance level of organism.  OR	03 04 07
Q.3	(a)	What is territorialism?	03
	(b) (c)	What is symbiotic relationship between organisms? What is the role of social behaviour in population regulation?	04 07
Q.4	(a) (b) (c)	Give application of GPS (any three). Discuss Image Interpretation keys in brief. Write a short note on Indian Remote Sensing Satellite.  OR	03 04 07
Q.4	(a)	Give advantages of GIS (any three).	03
	(b) (c)	Explain Malthusian theory of population growth. Enlist and explain applications of Remote sensing.	04 07
Q.5	(e) (a)	Differentiate between Photograph and Image (any three).	03
Q.3	(a) (b)	Explain importance of Remote Sensing in Environmental Engineering field.	03
	(e)	Describe Scale of Photograph.	07

## OR

Q.5	( )	Enlist various types of Photograph.	03			
	(b)	What are the key components of GIS?	04			
	(c)	Why Ground Truth is important in Remote Sensing?	07			
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