

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– IV (New) EXAMINATION – WINTER 2019****Subject Code: 2141305****Date: 14/12/2019****Subject Name: Ecology and Remote Sensing****Time: 10:30 AM TO 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.

		Marks	
Q.1	(a) State the objectives of ecology.	03	
	(b) Define Antibiosis with appropriate example.	04	
	(c) Enlist population estimation methods and explain any one in detail.	07	
Q.2	(a) Explain spectral reflectance curve.	03	
	(b) Write short note on Climographs.	04	
	(c) Discuss Image Interpretation keys in detail.	07	
OR			
Q.3	(c) Enlist and explain types of scattering.	07	
	(a) Write a note on Alien organisms.	03	
	(b) Differentiate between Photo and Image.	04	
Q.3	(c) Discuss Mutualism and Communalism with appropriate example.	07	
	OR		
	(a) Differentiate Digital image processing and visual image processing.	03	
Q.4	(b) Give the difference between Active sensors and Passive sensors.	04	
	(c) Write a short note on dominance hierarchy.	07	
	(a) Explain factors affecting GPS data quality.	03	
Q.4	(b) 'GIS is a knowledge hub' Justify the statement.	04	
	(c) Explain Shalford's law and Leibig's law of tolerance with appropriate example.	07	
	OR		
Q.4	(a) Enlist the applications of GIS.	03	
	(b) Why is Ground Truth important in Remote Sensing?	04	
	(c) How is Ocean and Coastal monitoring done by Remote sensing? State its few applications.	07	
Q.5	(a) Explain film resolution.	03	
	(b) Explain the role of Indicator Organism with suitable examples.	04	
	(c) Explain GPS in detail.	07	
OR			
Q.5	(a) Explain territorialism in detail.	03	
	(b) Explain agricultural applications of remote sensing in detail.	04	
	(c) Explain remote sensing process in detail.	07	
