

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-IV (NEW) - EXAMINATION – SUMMER 2017****Subject Code: 2141305****Date: 08/06/2017****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.

		<b>MARKS</b>
<b>Q.1</b>	<b>Short Questions</b>	<b>14</b>
	1 Give the full form of GIS & GPS.	1
	2 Enlist the uses of GIS.	1
	3 State the shalford's law.	1
	4 Give the examples of interaction in positive way.	1
	5 Give an example of indicator organism.	1
	6 Define the parasite.	1
	7 Give example of amensalism.	1
	8 Define mutualism.	1
	9 Give 3 examples of sanctuary in India	1
	10 Define remote sensing.	1
	11 Enlist the types of scale.	1
	12 Define photograph.	1
	13 Define Image.	1
	14 Give example of alien species.	1
<b>Q.2</b>	(a) Write a short note on active sensors.	<b>03</b>
	(a) Explain with suitable example " Passive sensor"	<b>04</b>
	(c) What is climagraph? Explain with neat sketch.	<b>07</b>
<b>OR</b>		
	(c) Explain the role of indicator organism with suitable examples.	<b>07</b>
<b>Q.3</b>	(a) Differentiate Digital image processing and visual image processing.	<b>03</b>
	(b) Explain communalism with proper example.	<b>04</b>
	(c) Explain the Malthusian theory.	<b>07</b>
<b>OR</b>		
<b>Q.3</b>	(a) Enlist the types of photographs & explain any one in detail.	<b>03</b>
	(b) Differentiate positive & negative interaction.	<b>04</b>
	(c) Discuss Image interpretation keys.	<b>07</b>
<b>Q.4</b>	(a) Explain the agricultural application of remote sensing.	<b>03</b>
	(b) Enlist the population forecasting methods & explain any one in detail.	<b>04</b>
	(c) Explain the remote sensing process in detail.	<b>07</b>
<b>OR</b>		
<b>Q.4</b>	(a) Explain the land use pattern application of remote sensing.	<b>03</b>
	(b) Explain the territorialism in detail.	<b>04</b>

- (c) Explain in detail population growth theory. **07**
- Q.5** (a) How predator controlling the population? **03**
- (b) Enlist the types of scattering & explain two in details. **04**
- (c) Write a short note on dominance hierarchy. **07**

**OR**

- Q.5** (a) Explain the objectives of ecology. **03**
- (b) Explain the any two key component of GIS **04**
- (c) Enlist the use of remote sensing in the environment engineering field. **07**

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