Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E.- SEMESTER–I • EXAMINATION – WINTER 2013

Subject Code: 711206N **Date: 06/01/2014**

Subject Name: Remote Sensing and Its Applications

Time: 10.30 To 13.00 **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Discuss the application of remote sensing in the field of Water resources management	**07**
	(b)	List out various softwares used for remote sensing and explain any one with its features.	**07**
Q.2	**(a)**	Describe the advantages and disadvantages of Remote sensing	**07**
	(b)	Write a short note on active and passive remote sensing systems	**07**
		OR	
	(b)	Describe the integration of GIS with Remote sensing with suitable example	**07**
Q.3	**(a)**	Describe the supervised and unsupervised classification phenomena.	**07**
	(b)	Write a difference between across track and along track scanning system.	**07**
		OR	
Q.3	**(a)**	Explain the process of visual image interpretation.	**07**
	(b)	Discuss the role of GPS as allied tool in Remote sensing applications with suitable example.	**07**
Q.4	**(a)**	Discuss the importance of ground truth verification with suitable example.	**07**
	(b)	Explain the radiometric resolution and spectral resolution	**07**
		OR	
Q.4	**(a)**	Explain the temporal resolution and spatial resolution.	**07**
	(b)	Explain true color composite and false color composite	**07**
Q.5	**(a)**	What does sensors and platforms in remote sensing mean? Explain various types of sensors and platforms used in remote sensing	**07**
	(b)	What is the phenomenon of filtering in image enhancement? Enlist various benefits of high pass and low pass filter.	**07**
		OR	
Q.5	**(a)**	Describe the various enhancements for digital image processing in detail.	**07**
	(b)	Explain the Side Looking Air Borne Radar system (SLAR) and its working in detail	**07**

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