Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E –Ist SEMESTER–EXAMINATION – JULY- 2012

Subject code: 711206 N **Date: 11/07/2012**

Subject Name: Remote Sensing and its Application

Time: 2:30 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.**

Q.1	**(a)**	Explain characteristics of electromagnetic spectrum with respect to use in water resources management.	**07**
	(b)	Explain elements of visual interpretation.	**07**
Q.2	**(a)**	Explain thermal infra red remote sensing and detectors.	**07**
	(b)	Explain preprocessing of remotely sensed data.	**07**
		OR	
	(b)	Explain roll of IRS satellites in management of ground water.	**07**
Q.3	**(a)**	Explain supervised and unsupervised image classification.	**07**
	(b)	Define various types of resolutions and their importance.	**07**
		OR	
Q.3	**(a)**	Explain true color composite and false color composite.	**07**
	(b)	Explain the integration of remote sensing and GIS.	**07**
Q.4	**(a)**	How multispectral scanning helps in recognition of objects.	**07**
	(b)	Give point wise details of use of remote sensing in watershed management.	**07**
		OR	
Q.4	**(a)**	Write in detail the characteristics of surface water and ground water in remote sensing images.	**07**
	(b)	How remote sensing could be a handy tool in environmental monitoring.	**07**
Q.5	**(a)**	Write capabilities of the software ENVI used in the field of RS.	**07**
	(b)	Explain synthetic aperture radar (SAR) with its working.	**07**
		OR	
Q.5	**(a)**	Write capabilities of the software ERDAS used in the field of RS.	**07**
	(b)	Explain side looking air borne radar system (SLAR) with its working.	**07**

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