Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – I • EXAMINATION – WINTER • 2014

Subject code: 2713304 **Date: 12-01-2015**

Subject Name: Remote Sensing and Its Application

Time: 02:30 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)**	Describe the role of remote sensing in Water Resources Engineering with suitable example.	**07**
	(b)	Signify the role of spectral reflectance curves in remote sensing .Support your answer with spectral reflectance curves of Soil and vegetation.	**07**
Q.2	**(a)**	Enlist and explain the advantages and limitations of remote sensing applications.	**07**
	(b)	Enlist and explain various components of Remote sensing.	**07**
		OR	
	(b)	Explain the following: (1) Spectral Resolution (3) Spatial Resolution (3) ISRO	**07**
Q.3	**(a)**	What does image interpretation mean? Explain various elements of image interpretation.	**07**
	(b)	Differentiate (1) Active and Passive Remote Sensing (2) Airborne and Space borne Platforms of remote sensing.	**07**
		OR	
Q.3	**(a)**	Write short notes on: (1) Ground Truth (2) Map Digitizer	**07**
	(b)	Enlist various softwares used for remote sensing applications. Explain any one in detail with its features and capabilities.	**07**
Q.4	**(a)**	Enlist various applications of remote sensing in Hydrology and explain one in detail.	**07**
	(b)	How do you see the role of GIS in Civil Engineering applications of remote sensing	**07**
		OR	
Q.4	**(a)**	Enlist various applications of remote sensing in Construction Management and explain one in detail.	**07**
	(b)	How do you see the role of GPS in Civil engineering applications of remote sensing	**07**
Q.5	**(a)**	Write Short note on : (1) Multi temporal images (2) Image Enhancement	**07**
	(b)	Describe Supervised and Unsupervised classification and its applications in remote sensing.	**07**
		OR	
Q.5	**(a)**	Write short note on: (1) EMR Spectrum (2) True and False Colour Composite	**07**
	(b)	Write short note on: (2) Spectral Signature (2) Filtering	**07**

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