Seat No.:		Enrolment No	Enrolment No	
		GUJARAT TECHNOLOGICAL UNIVERSITY		
		M.E –II <sup>st</sup> SEMESTER–EXAMINATION – JULY- 2012		
•	Subject code: 1721311 Date: 14/07/20 Subject Name: Geo-Spatial Techniques		)12	
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		30 am – 13:00 pm Total Marks:	70	
Instr				
		empt all questions. ke suitable assumptions wherever necessary.		
		ares to the right indicate full marks.		
Q.1	(a) (b)	Define GIS and discuss its principles and applications.  Describe divisions of electromagnetic spectrum and explain suitability of different wavelengths groups for remote sensing.	07 07	
Q.2	(a)	Define a coordinate reference system and explain in detail geographic coordinate system.	07	
	<b>(b)</b>	Discus linear coordinate transformations.  OR	07	
	<b>(b)</b>	Describe interaction of electromagnetic radiation with atmosphere and explain what atmospheric windows are?	07	
Q.3	(a)	Furnish comparative description between raster data model and vector data model.	07	
	<b>(b)</b>	Explain in brief vector based GIS data processing.  OR	07	
Q.3	(a) (b)	Compare geodetic and vertical datums.  Describe Georeferencing.	07 07	
Q.4	(a)	Describe deferent spectral bands and their application in remote sensing.	07	
	<b>(b)</b>	Explain interaction of electromagnetic radiation with the target.  OR	07	
Q.4	(a)	What is Digital Terrain Model? Explain its applications.	07	
Q.4	<b>(b)</b>	Discuss Geo-relational Data Model.	07	
Q.5	(a)	Explain functional segments of GPS.	07	
-	<b>(b)</b>	How does GPS work? Write applications of GPS.  OR	07	
Q.5	(a)	Explain factors affecting GPS data quality.	07	
	<b>(b)</b>	Discuss briefly components of Geographic Data Quality.	<b>07</b>	

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