## GUJARAT TECHNOLOGICAL UNIVERSITY M.C.A.- SEMESTER - V • EXAMINATION - WINTER 2012

Subject code: 650013  Subject Name: Geographical Information System (GIS)  Time: 10:30 am – 1:00 pm  Total Marks: 70			
Ins	1. 2.	tions: Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Explain Raster and Vector Errors in Detail. What is GIS? Explain the methods for representing geographic space.	07 07
Q.2	(a)	Explain spatial location and reference. Explain MAP Scale.	07
	<b>(b)</b>	Describe Metadata and Metadata standard with all its category.  OR	07
	<b>(b)</b>	Explain methods of compacting raster data to preserve storage.	07
Q.3	(a)	Explain vector models.	07
	<b>(b)</b>	Explain Map preparation and Digitization process.	07
Q.3	(a)	OR Explain DB structures for managing data.	07
Q.4	(b) (a)	Explain sliver polygons and wired polygons and Tiling. Explain how to calculate or measure polygon length, parameter, area.	07 07
	<b>(b)</b>	Explain High pass filter and low pass filter.  OR	07
Q.4	(a)	Write a note on kriging and semivariogram.	07
Q.4	<b>(b)</b>	Explain alpha index and beta index. Explain Gravity Model.	07
Q.5	(a) (b)	Explain Cartographic Output in detail.  Describe Point, line, Polygon overlay on Polygon in both Raster and Vector System.	07 07
Q.5	(a)	<b>OR</b> Explain Inductive and Deductive modeling.	07
	<b>(b)</b>	What are surfaces? Explain surface mapping.	07

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