Subject Code: 2721311

GUJARAT TECHNOLOGICAL UNIVERSITY

ME SEMESTER II EXAMINATION – SUMMER 2017

Date: 31/05/2017

Subject Name: Geo Spatial Techniques Time: 02:30 PM to 05:00 PM						Total Marks:	Total Marks: 70	
Inst	2.	. Attempt all questions.	otions wherever	•	·.			
Q.1	(a)	Define GIS and briefly explain its key components. Also, write a detailed note on functions of GIS.						
	(b)	n the spatial data and	07					
Q.2	(a)	How GIS is advantageous than other conventional methods? Also, enlist						
	(b)	various limitations of GIS. Explain the concept of database and DBMS. Explain its advantages. OR						
	(b)	What is metadata and what are its roles in GIS? Explain the concept of RDBMS with suitable example.						
Q.3	(a) (b)	Explain various types of Resolution for an image. Elaborate on the relationship between the costs and benefits of a GIS based system of information.						
Q.3	(a) (b)	OR Classify maps and different types of map scales. Discuss spaghetti, vertex dictionary, run-length encoding and DIME.						
Q.4	(a) (b)	What method is employed to estimate the density for point pattern? Explain about line data encoding. Discuss the method to find out shortest path in a network.					07 07	
				OR				
Q.4	(a)	Find out the area of a simple polygon from the given node coordinate data: 0						
			NODE	Xi	Yi			
			1	2	2			
			2	1	3			
			3	3	6			
			4	7	6			
			5	5	3			
	(b)	Enlist and explain various requirements of ground-truth data.						
Q.5	(a) (b)	Elaborate on GPS sensor types and signals. Describe interaction of electromagnetic radiation with atmosphere and explain what atmospheric windows are?						
0.5	(5)	OR						
Q.5 (a) What are the advantages and limitations of remote sensing?(b) Enlist the different characteristics of photo interpretation and expressions.							07 07	
