Reg.No. | | | | | | | | | | | |

B.E./B.Tech. (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL 2011

GEOINFORMATIC ENGINEERING BRANCH

FIFTH SEMESTER

GI 9305 GEOGRAPHICAL INFORMATION SYSTEM - I

(Regulation 2008)

33

Time : 3 Hours Maximum Marks: 100

Answer ALL questions

PART A – (10 X 2 = 20 marks)

1. Define GIS as a decision support system.
2. Write about people components of GIS.
3. Classify data component of GIS.
4. What are the advantages of Relational Database Management System?
5. Write the characteristics of Raster data structure.
6. List any four rules of topological consistency.
7. What is Heads-up digitization?
8. How do you link digital databases with GIS data?
9. Write the characteristics of satellite data useful for DEM generation.
10. What is Delaunay triangle?

PART B – (5 X 16 = 80 marks)

11(a) (i) Explain different file structures used for data storage with their relative advantages. 8

(ii)Differentiate Interval and Ratio level of measurements 4

(iii)What is E-R Diagram? How does it help in spatial database design? 4

12(a) (i)How digital cartography differs from GIS. 4

(ii)Write a note on History of GIS. 6

(iii)Describe any popular GIS software with its capabilities. 6

(OR)

(b) (i)What are the different classes of maps? 4

(ii)Explain the various components of GIS in detail. 12

13(a) Explain the following data compression methods with their advantages for Raster Data Compression 16

i) Quadtree Data Structure ii) Chain Coding

(OR)

(b)	(i) What is topology? How do you check and correct topological consistency in vector data?	6
	(ii)Describe different data structures used for vector data storage in GIS with their merits and demerits	10
14(a)	Explain different file formats used for storing raster data in GIS.	16

(OR)

(b)	(i)Why do we need Georeferencing of Vector data?	4
	(ii)Compare and contrast different methods of digitization used for vector data input.	12
15(a)	Explain the data structure of Triangulated Irregular Network (TIN) and discuss its merits over gridded DEM.	16

(OR)

(b)	(i)Describe various methods used for visualization of Digital Terrain Model.	8
	(ii)Explain working the principle of ALTM with a neat sketch.	8