

28/5/13

Roll No									
---------	--	--	--	--	--	--	--	--	--

33

B.E DEGREE END SEMESTER EXAMINATIONS, APRIL/MAY 2013

AGRICULTURAL AND IRRIGATION ENGINEERING BRANCH

SIXTH SEMESTER

AI 9352 GEOGRAPHICAL INFORMATION SYSTEM

(REGULATIONS 2008)

Time: 3 Hours

Max. Marks : 100

(Answer All Questions)

Part – A (10 x 2 = 20 Marks)

1. What do you understand by non coordinate system of spatial referencing?
2. Cite examples for large scale mapping in Agricultural Engineering.
3. When will you choose the hierarchical database structure?
4. Highlight the characteristics of topological vector data structure.
5. Illustrate the spatial relationship between line and area features.
6. What are the different ways of representing elevation in GIS?
7. Highlight the importance of time factor while creating GIS database.
8. Mention the utility of scatter plot for agricultural data analysis.
9. How will you determine the spatial extent of crop disease using GIS?
10. How do mobile GIS support forest protection and surveillance activities?

Part – B (5 x 16 = 80 Marks)

- 11 (i) How does the geographic information managed with and without GIS. (4)
(ii) Highlight the problems while representing the real world features as spatial entities. (4)
(iii) Define map projection. Discuss any two types of map projection. (8)

- 12 (a) (i) Mention different objects, their characteristics and functions of an Irrigation System. (6)
(ii) Explain briefly about the Relational database structures. (10)

(OR)

- 12 (b) Enlighten the various data compaction techniques of raster data structure. (16)

- 13 (a)(i) Explain the approximate methods of point based interpolation. (8)
(ii) Discuss briefly about the vector overlay analysis. (8)

(OR)

- 13 (b) Elaborate the different network analysis functions that can be performed using GIS? (16)

- 14 (a)(i) Categorize the different sources of errors encountered in any GIS project? (8)
(ii) How will you test the positional and attribute accuracy (8)

(OR)

- 14 (b) What are the different kind of maps generated by GIS for mapping, monitoring and modeling of Agricultural and Water Resources? (16)

- 15(a) Explain the methodology to identify the potential sites for mulberry plantation using GIS.

(OR)

- 15(b) How will you carry out the Agricultural drought Vulnerability Mapping using GIS?