

**B.E / B.Tech. (Full Time) DEGREE END SEMESTER EXAMINATIONS NOV/DEC - 2012**

**AGRICULTURAL AND IRRIGATION ENGINEERING BRANCH**

**SIXTH SEMESTER**

**AI 9352 – GEOGRAPHICAL INFORMATION SYSTEMS**  
**(REGULATION - 2008)**

**Time: 3 hours**

**Marks: 100**

**Part – A**

**10 x 2 = 20**

**Answer ALL questions**

1. Define earth and non-earth projection.
2. Write the important features of a map.
3. Distinguish between raster and vector data with example.
4. What do you understand by the term "data editing"?
5. State the importance of interpolation in GIS.
6. Differentiate between GRID and TIN?
7. How improve the data quality in mapping?
8. Write the sources of error in GIS analysis.
9. List the different areas of GIS application in Agricultural Engineering.
10. How GPS is used in administration of agri business?

**Part - B**

**5 x 16 = 80**

- 11.(a)(i) Explain the various types of coordinate system used in GIS. **(10)**  
(ii) List the different types of spatial data and Explain with map **(6)**
- 12.(a)(i) Explain briefly the creation of database in GIS analysis **(8)**  
(ii) Explain the various raster data structures. **(8)**  
**(OR)**  
(b)(i) What is data structures and data compression? Also explain how it is useful in GIS. **(12)**  
(ii) Differentiate between spatial and non-spatial data **(4)**
- 13.(a)(i) What is the use of buffering tool in GIS and explain the application of this tool **(8)**  
(ii) What is query analysis in GIS and explain with an example **(8)**  
**(OR)**  
(b)(i) Write the different interpolation methods used in GIS analysis? **(4)**  
(ii) Explain how the suitable artificial recharge areas are identified using Map overlay techniques? **(12)**
- 14.(a)(i) How will you check data quality in the GIS? and explain with an example **(8)**  
(ii) Write the step by step procedure adopted in elimination of different errors **(8)**  
**(OR)**  
(b) Explain the various types of spatial and non spatial data output in GIS. **(16)**
- 15.(a) Explain the application of GIS in disease tracking and control **(16)**  
**(OR)**  
(b) Explain the role of GIS and GPS in developing agricultural information system by integrating all agricultural parameters. **(16)**

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