

[Time: 3 Hours]

[Marks:100]

Please check whether you have got the right question paper.

- N.B:**
1. **Question No.1 is compulsory.**
 2. **Attempt any four from the remaining six questions.**

1. (a) Briefly explain the key data issues encountered in implementing GIS. 10
(b) What are the advantages and disadvantages of raster data model? List various types of Raster data used in GIS. 10
 2. (a) What are the different approaches to representing the real world? 10
(b) Describe the various applications of GIS. 10
 3. (a) What is the difference between the Object based data model and Georelation data model? 10
(b) Explain with suitable example the vector and raster method of geographic data representation. 10
 4. (a) What is geocoding? Discuss the process of geocoding using a suitable example. 10
(b) What is overlay operation? Explain the groups of overlay operations and overlay methods in detail. 10
 5. (a) Explain what is projection? Discuss the various methods of map projections. 10
(b) What is pattern analysis? Describe Nearest Neighbor Analysis. 10
 6. (a) Discuss the relationship between GIS and location based services (LBS)? Explain the flow of information in LBS. 10
(b) Explain the geographic coordinate system and clarify the importance of datum in GIS. 10
 7. Write Short Notes on any four:- 20
 - a) Components of GIS
 - b) Dynamic Segmentation
 - c) Spatial data query
 - d) Data classification and feature coding
 - e) GIS Software
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