[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) What are the various applications of GIS? Explain with suitable example.   10

    (b) Discuss what is projection? Explain the various methods of map projections.   10

2. (a) Describe with suitable example the vector and raster method of geographic data representation.   10

    (b) Explain the geographic coordinate system and clarify the importance of datum in GIS.   10

3. (a) What are the key data issues encountered in implementing GIS?   10

    (b) What are the different approaches to representing the real world?   10

4. (a) What are the advantages and disadvantages of raster data model?   10
         List various types of Raster data used in GIS.

    (b) What is pattern analysis? Describe Nearest Neighbor Analysis.   10

5. (a) What is overlay operation? Explain the groups of overlay operations and overlay methods in detail.   10

    (b) Explain the difference between the coverage model and the geodatabase data model in storing a routes   10
         linear measure system with and example.

6. (a) Describe the concept and applications of geocoding.   10

    (b) What is the relationship between GIS and location based services (LBS)? Explain the flow of information in   10
         LBS.

7.   Write Short Notes on any four:-   20
         a) Geospatial data
         b)   GIS Components
         c) Operations of GIS
         d) Digitizing Process
         e) Dynamic Segmentation

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