CBCS SCHEME

USN | | | | | | | | | | **BCV654B**

Sixth Semester B.E./B.Tech. Degree Examination, June/July 2025
Geographic Information System

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

			M	L	C
		Module – 1			
Q.1	**a.**	Explain the components of GIS.	**10**	**L3**	**CO1**
	b.	Differentiate between spatial data and attribute data with suitable examples.	**10**	**L2**	**CO1**
		OR			
Q.2	**a.**	Explain the different types of GIS software with a comparison of proprietary and open source software.	**8**	**L8**	**CO1**
	b.	Discuss the evolution and history of GIS.	**4**	**L3**	**CO1**
	c.	What are coordinate systems? Describe their importance in GIS.	**8**	**L1**	**CO1**
		Module – 2			
Q.3	**a.**	Differentiate between raster and vector data models.	**10**	**L2**	**CO2**
	b.	Explain the structure of spatial database using ER diagrams.	**10**	**L3**	**CO2**
		OR			
Q.4	**a.**	Compare and contract conceptual, logical and physical data models in GIS.	**10**	**L2**	**CO2**
	b.	Describe raster data structure and technique used for raster data compression.	**10**	**L2**	**CO2**
		Module – 3			
Q.5	**a.**	Define Digitizer. List the different types of digitizer.	**10**	**L1**	**CO3**
	b.	How GPS data integrated into a GIS? Discuss with a flow chart.	**10**	**L3**	**CO3**
		OR			
Q.6	**a.**	Explain the various methods and importance of coordinate transformation system.	**10**	**L3**	**CO3**
	b.	Enumerate the difference between connectivity and containment.	**10**	**L2**	**CO3**
		Module – 4			
Q.7	**a.**	Define Spatial Data Infrastructure (SDI) and its significance.	**10**	**L1**	**CO4**
	b.	What is GIS standards? Why is interoperability important in GIS system?	**10**	**L1**	**CO4**

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		OR			
Q.8	**a.**	Explain open geospatial consortium.	**10**	**L3**	**CO4**
	b.	Explain the concept of metadata and its role in data documentation.	**10**	**L3**	**CO4**
		Module – 5			
Q.9	**a.**	What are the functions of data management in GIS?	**10**	**L1**	**CO5**
	b.	Explain the process of converting raster to vector and vice versa.	**10**	**L3**	**CO5**
		OR			
Q.10	**a.**	Describe steps involved in map compilation and layout design.	**10**	**L3**	**CO5**
	b.	Differentiate between enterprise and Desktop GIS.	**10**	**L2**	**CO5**

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