ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)
B.E. (Full Time) - END SEMESTER EXAMINATIONS, April / May 2025
GEOINFORMATICS
IVth Semester
GI 23401 & CARTOGRAPHY AND GIS
(Regulation 2023)

Time:3hrs   Max.Marks: 100

CO1	To identify and describe various types of maps, map projections, and coordinate systems used in cartography
CO2	To apply map design principles and produce maps with appropriate symbolization, color theory, and geometric transformations
CO3	To explain the components and data models of GIS and classify different types of spatial and attribute data
CO4	To demonstrate data input techniques, coordinate transformation, and the application of topology in GIS
CO5	To evaluate the quality of GIS data and create accurate data outputs, including maps, charts, and graphs

BL – Bloom's Taxonomy Levels
(L1-Remembering, L2-Understanding, L3-Applying, L4-Analysing, L5-Evaluating, L6-Creating)

PART- A(10x2=20Marks)
(Answer all Questions)

Q.No.	Questions	Marks	CO	BL
1	Write the features of Representative Fraction.	2	1	L2
2	Specify the characteristics of UPS.	2	1	L2
3	What do you mean by Additive and Subtractive Color Theory?	2	2	L2
4	Write the functions of Map Lettering.	2	2	L2
5	Define GIS.	2	3	L1
6	List any two GIS General users.	2	3	L1
7	List any two Raster Data File formats.	2	4	L1
8	Specify the significance of Accuracy parameter in Scanner	2	4	L2
9	Define Standard.	2	5	L1
10	Mention the objectives of OGC.	2	5	L2

PART- B(5x 13=65Marks)
(Restrict to a maximum of 2 subdivisions)

Q.No.	Questions	Marks	CO	BL
11 (a)	Discuss the different types of Projections based on the Developable Surface and Aspects.	13	1	L4
	OR			
11 (b)	Explain the Polar and Geographic Coordinate system using a suitable figure.	13	1	L4
12 (a)	Elaborate the different methods of Cartographic Generalization using a suitable sketch.	13	2	L4
	OR			
12 (b)	Explain the methods of Similarity and Affine Transformation.	13	2	L4
13 (a)	Explain the Data and Technology components of GIS.	13	3	L4
	OR			
13 (b)	Using a suitable example Explain the Spaghetti and Arc-Node Topological Data Model.	13	3	L4
14 (a)	Using a suitable flowchart Apply the concept of Graphical Data conversion by Digitizing.	13	4	L3
	OR			
14 (b)	Apply the concept of Image to Map Rectification in Georeferencing.	13	4	L3
15 (a)	Explain the following terms a) Lineage b) Logical Consistency and c) Completeness	13	5	L4
	OR			
15 (b)	Explain the classification of Standards in GIS.	13	5	L4

PART- C(1x 15=15Marks)
(Q.No.16 is compulsory)

Q.No.	Questions	Marks	CO	BL
16.	A Company has got a project for the creation of 3D data for the Nilgiris and Villupuram Districts of Tamil Nadu. Evaluate the approaches to Terrain Data modelling available and suggest the suitable model for the above two study area	15	3	L5