VASAVI COLLEGE OF ENGINEERING *(Autonomous)*, HYDERABAD
B.E. (CBCS) III-Semester Main Examinations, December-2018
Geographical Information Systems
(Open Elective-I)

Time: 3 hours

Max. Marks: 60

Note: Answer ALL questions in **Part-A** and any FIVE from **Part-B**

Q.No.		Stem of the question	M	L	CO	PO
		Part-A (10 × 2 = 20 Marks)				
1.		List out the different Coordinate systems that are widely used in GIS.	2	1	1	1
2.		Why are map projections necessary in GIS?	2	2	1	2
3.		What are the components in Raster data structure?	2	1	2	1
4.		Differentiate between Spatial data and Non-spatial data.	2	2	2	2
5.		Name the different elements of SQL.	2	1	2	1
6.		Define Reclassification.	2	1	3	1
7.		What is conflation?	2	1	4	1
8.		How many types of query functions are there in GIS? Illustrate one query with an example.	2	2	4	1
9.		Name any four standard GIS Packages.	2	1	1	1
10.		List out the uses of Spatial Analysis.	2	1	4	1
		Part-B (5 × 8 = 40 Marks)				
11.	a)	Explain the classification of maps that are majorly used in GIS. Also, what are the applications of maps?	5	2	1	1
	b)	Compare different types of Projection systems that are used in GIS	3	2	1	2
12.	a)	Illustrate different Data entry Methods in GIS	5	2	2	1
	b)	Write a short note on Data Compression	3	2	2	1
13.	a)	What do you mean by the term "DEM"? Outline the applications and uses of DEM.	5	3	3	1
	b)	Describe the concept of Cost Path Analysis in GIS	3	2	4	1
14.	a)	Elaborate the techniques of Rubber Sheeting that is used in GIS	5	2	4	1
	b)	Write a short note on the Vector Overlay Analysis Operations	3	2	3	1
15.	a)	What is GIS? Explain the History of Development of GIS. Mention some of the applications and uses of GIS.	6	2	1	1
	b)	What is meant by the term "Manual Digitization"?	2	1	2	2

16.	a)	Detail the steps that are followed for Organizing of Data in GIS	6	2	4	1
	b)	Summarize the types of Modeling in GIS	2	2	3	1
17.		Answer any *two* of the following:				
	a)	Write a short note on Map Transformation, Rotation and Translation	4	2	1	1
	b)	Illustrate the concept of Knowledge Based Systems in detail	4	2	4	1
	c)	Explain the application of GIS in any one of the engineering branches	4	6	4	3

M: Marks; L: Bloom's Taxonomy Level; CO: Course Outcome; PO: Programme Outcome

S. No.	Criteria for questions	Percentage
1	Fundamental knowledge (Level-1 & 2)	88.17
2	Knowledge on application and analysis (Level-3 & 4)	6.57
3	*Critical thinking and ability to design (Level-5 & 6) (*wherever applicable)	5.26

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