Code: 20CS6621

III B.Tech - II Semester – Regular Examinations – JUNE 2023

DATA VISUALIZATION
(HONORS in COMPUTER SCIENCE & ENGINEERING)

Duration: 3 hours   Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.
2. All parts of Question must be answered in one place.

BL – Blooms Level   CO – Course Outcome

			BL	CO	Max. Marks
		UNIT-I			
1	a)	Briefly explain the purpose of visualization?	L2	CO1	7 M
	b)	Discuss how different Visualizations helps us understand the same data in different ways. Express your opinion.	L2	CO1	7 M
		OR			
2	a)	Explain the purpose of visualization and factors involved in visual perception.	L2	CO1	7 M
	b)	Discuss design principles behind visualization pipeline.	L2	CO1	7 M
		UNIT-II			
3	a)	What are the main differences of visualization on a computer screen and human visual perception?	L2	CO2	7 M
	b)	Briefly explain contouring method.	L2	CO2	7 M
		OR			

4	a)	Write a short note on height plots.	L2	CO2	7 M
	b)	Illustrate colour mapping with suitable examples.	L3	CO3	7 M

UNIT-III

5	a)	Discuss vector colour coding methods with suitable examples.	L3	CO3	7 M
	b)	Illustrate Texture based visualization with examples.	L3	CO3	7 M

OR

6	a)	Explain about selection and cutting with examples.	L2	CO2	7 M
	b)	Make use of scattered points in grid construction for domain modeling.	L3	CO3	7 M

UNIT-IV

7	a)	Discuss the main techniques used in image visualization.	L2	CO3	7 M
	b)	Describe the benefits of image visualization.	L2	CO3	7 M

OR

8	a)	Interpret applications of image visualization. Explain briefly.	L2	CO3	7 M
	b)	Differentiate various shape representation techniques for image data.	L4	CO3	7 M

UNIT-V

9	a)	Explain key principles for effective information visualization.	L2	CO4	7 M
	b)	Explain, how can information visualization be used in industries?	L2	CO4	7 M
OR					
10	a)	Explain the challenges of table visualization.	L2	CO4	7 M
	b)	Discuss the techniques that can be used to effectively visualize text data.	L2	CO4	7 M