



Roll No.

--	--	--	--	--	--	--	--	--	--

ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)

B. Tech - END (ARREAR) SEMESTER EXAMINATIONS, APR / MAY 2024

INFORMATION TECHNOLOGY

Semester : V

IT5013 / VISUALIZATION TECHNIQUES

(Regulation 2019)

Time: 3hrs

Max.Marks: 100

CO 1	To understand the fundamentals of data visualization.
CO 2	To know the working principles of various information visualization Tools.
CO 3	To acquire knowledge about the issues in data representation
CO 4	To visualize the complex engineering design.
CO 5	To gain skill in designing real time interactive Information visualization system

BL – Bloom's Taxonomy Levels

(L1 - Remembering, L2 - Understanding, L3 - Applying, L4 - Analysing, L5 - Evaluating, L6 - Creating)

PART- A (10 x 2 = 20 Marks)

(Answer all Questions)

Q. No	Questions	Marks	CO	BL
1	Define the Importance of data collection.	2	CO1	L1
2	What are the three important aspects of visualization?	2	CO1	L1
3	Explain complexities involved with Data with an example.	2	CO2	L2
4	Consider Altimeter in a Aeroplane. What type of Encoding and type of data is implemented in it?	2	CO2	L5
5	Distinguish between Recognition and Recall with an example.	2	CO3	L2
6	"Attention Blink" – Is it worth looking into? Justify.	2	CO3	L4
7	Draw the Geon spatial Relationship for 1) Engineering courses 2) Arts and Science Courses	2	CO4	L3
8	"Static presentation is better to animated presentation". State the reason.	2	CO4	L4
9	Define Augmented Reality with an example	2	CO5	L2
10	Mention the limits of Virtual Reality.	2	CO5	L1

PART- B (5 x 13 = 65 Marks)

(Restrict to a maximum of 2 subdivisions)

Q. No	Questions	Marks	CO	BL
11 (a) (i)	Draw and explain neatly the Visualization Stages based on a university environment.	13	CO1	L3
OR				
11 b	Suggest methods to deal with the following issues. (i) Reading through the whole of the paper & Information must move smoothly and continuously. (ii) Too much of text. But user wants part to be displayed in one direction but other details should be made aware.	7 6	CO1	L3
12 (a) (i)	"A radio producing Company analyse the performance (No of Faults) of its produce based on Month of Production and Months in service. Also at near future It wants to scale up the analysis	13	CO2	L3

	based on geographical location". Suggest the correct diagram and draw it and anticipate the impact the diagram has in the requirements of the company.			
OR				
12 (b) (i)	Explain the encoding of a data with suitable diagrams with respect to faculty data of an university.	13	CO2	L3
13 (a) (i)	For an International Aviation industry find and draw the geon elements and the spatial relationship for the hierarchy in managing the airline operation.	13	CO3	L2
OR				
13 (b) (i)	Explain in detail the Task – Based Space Perception.	13	CO3	L2
14 (a) (i)	Draw and explain the Norman Action cycle for organizing an app for the upcoming Technical event in an University.	13	CO4	L4
OR				
14 (b) (i)	Explain the Interaction for navigation concepts with relevant examples and diagram.	13	CO4	L4
15 (a) (i)	Write in detail the pro's and con's of a) Interactive medical application with suitable example. b) Small Interactive Calendars	6 7	CO5	L4
OR				
15 (b) (i)	Explain how the Tactile maps for visually challenged people is designed and implemented.	13	CO5	L4

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

Q. No	Questions	Marks	CO	BL
16.	Explain in details the issues in visualization techniques with suitable diagram.	15	CO1	L6

