

Dicipline:	CSE	Semester:	3rd	Name of the Teaching Faculty:	PN Suchismita
Subject:	DS	No of Days/Week Class Allotted:	4	Semester From date:	15.9.22 To date 21.1.23
				No. of Weeks:	8
WEEK	Class Day	Theory Topics			
1	1st	Introduction Explain data, information, data types.			
	2nd	Define data structure & Explain different operations.			
	3rd	Explain Abstract data types.			
	4th	Discuss Algorithm & its complexity			
	5th				
2	1st	Explain Time, Space trade off.			
	2nd	Question and Answer (Discuss).			
	3rd	Explain Basic Terminology, storing strings.			
	4th	State character Data type.			
	5th				
3	1st	Discuss String operation.			
	2nd	Question and Answer (Discuss).			
	3rd	Give introduction about Array.			
	4th	Discuss linear arrays, representation of linear array in memory			
	5th				

WEEK	Class Day	Theory Topics
4	1st	Explain traversing linear arrays, inserting & deleting elements.
	2nd	Discuss multidimensional arrays, representation of two dimensional arrays.
	3rd	Memory (row major orders & column major order) and pointers.
	4th	Explain sparse matrices.
	5th	
5	1st	Question & Answer (Discuss)
	2nd	Give fundamental idea about stack and queue.
	3rd	Explain array representation of stack.
	4th	Explain arithmetic Expression, Polish notations conversion.
	5th	
6	1st	Discuss application of stack, recursion
	2nd	Discuss queues, circular queue, priority queue.
	3rd	Questions & Answer (Discuss).
	4th	Give introduction about linked list.
	5th	

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WEEK	Class Day	Theory Topics		
7	1st	Explain representation of linked list in memory.		
	2nd	Discuss traversing a linked list, searching.		
	3rd	Discuss garbage collection.		
	4th	Explain into a linked list, Deletion from a linked list, header linked list		
	5th			
8	1st	Question & Ans (Discuss).		
	2nd	Explain Basic terminology tree.		
	3rd	Discuss Binary, its representation and traversal.		
	4th			
	5th			
	1st	Heap sort & it's example		
	2nd	Bubble sort & it's example		
	3rd	Quick sort & it's example		
	4th			
	5th			


