

**St. Ann's College of Engineering & Technology: Chirala**  
**Department of COMPUTER SCIENCE & ENGINEERING**  
**LECTURE SCHEDULE**

**SUBJECT: DS through C++**

**NAME: G. Prasuna**

**No. of Lectures per week: 5 + 1\*(Tut)**

**ACADEMIC YEAR: 2019-20**

**YEAR & SEM/SECTION: II -I CSE-A**

S. NO	DATE	UNIT	TOPICS	
1	10-Jun-19	I	Unit I-Introduction to Class	1
2	11-Jun-19		Data Abstraction & Encapsulation	2
3	12-Jun-19		Declaring Class Objects and Invoking Member Functions	3
4	13-Jun-19		Special Class Operations	4
5	14-Jun-19		Tutorial	
6	15-Jun-19		ADTs and C++ Classes	5
7	17-Jun-19		The Array as an Abstract Data Type	6
8	18-Jun-19		The Polynomial ADT - Its Representation & Addition	7
9	19-Jun-19		Sparse Matrices, Introduction - Its Representation	8
10	20-Jun-19		Transposing a Matrix	9
11	21-Jun-19		Tutorial	
12	22-Jun-19		Matrix Multiplication	10
13	24-Jun-19		Representation of Arrays	11
14	25-Jun-19		Unit- 1 Revision through PPT	
15	26-Jun-19		Unit - I Test	
16	27-Jun-19	II	Unit II-Templates in C++	1
17	28-Jun-19		Tutorial	
18	29-Jun-19		Template Functions	2
19	1-Jul-19		Using Templates to Represent Container Classes	3
20	2-Jul-19		The Stack Abstract Data Type	4
21	3-Jul-19		Stack Operations	5
22	4-Jul-19		The Queue Abstract Data Type	6
23	5-Jul-19		Tutorial	
24	6-Jul-19		Queue Operations	7
25	8-Jul-19		Subtyping in C++	8
26	9-Jul-19		Inheritance in C++	9
27	10-Jul-19		Evaluation of Expressions, Postfix Notation	10
28	11-Jul-19		Infix to Postfix	11
29	12-Jul-19	Tutorial		
30	15-Jul-19	Unit -2 Revision through PPT		
31	16-Jul-19	Unit - II Test		
32	17-Jul-19		Unit- III SLL and Chains, Representing Chains in C++	1
33	18-Jul-19		Defining a Node in C++, Designing a Chain Class in C++	2
34	19-Jul-19		Tutorial	
35	20-Jul-19		Pointer Manipulation in C++	3
36	22-Jul-19		Chain Manipulation Operations, The Template Class Chain, Implementing Chains with Templates	4
37	23-Jul-19		Chain Iterators-Chain Operations- Reusing a Class	5
38	24-Jul-19		CLL, Available Space Lists	6

39	25-Jul-19	III	LinkedStacksandQueues	7
40	26-Jul-19		Tutorial	
41	27-Jul-19		Polynomials, Polynomial Representation- Adding Polynomials- CircularList Representationof Polynomials	8
42	29-Jul-19		Equivalence Classes, Sparse Matrices, SparseMatrixRepresentation - Sparse MatrixInput- Deleting aSparseMatrix	9
43	30-Jul-19		DoublyLinkedLists	10
44	31-Jul-19		GeneralizedLists, Representation ofGeneralized Lists	11
45	1-Aug-19		RecursiveAlgorithms forLists-Reference Counts, Shared and RecursiveLists	12
46	2-Aug-19		Unit 3 Revision through PPT	
47	3-Aug-19		Revision on Unit 1,2,3	
48	5-Aug-19		I Mid	Revision
49	6-Aug-19	Revision		
50	7-Aug-19	Revision		
51	8-Aug-19	Revision		
52	9-Aug-19	Revision		
53	10-Aug-19	Revision		
54	13-Aug-19	IV	Unit IV Trees Introduction, Terminology, Representation	1
55	14-Aug-19		Binary Trees, TheADT, Properties of Binary Trees	2
56	16-Aug-19		Tutorial	
57	17-Aug-19		Binary Tree Representations	3
58	19-Aug-19		Binary Tree Traversal and Tree Iterators	4
59	20-Aug-19		In-order, Preorderand Post-order Traversals	5
60	21-Aug-19		ThreadedBinary Trees, Threads	6
61	22-Aug-19		In-orderTraversalofa Threaded Binary Tree	7
62	26-Aug-19		InsertingaNodeintoa Threaded Binary Tree	8
63	27-Aug-19		Heaps, Priority Queues, Definitionofa MaxHeap	9
64	28-Aug-19		Insertionintoa MaxHeap, Deletionfroma MaxHeap	10
65	29-Aug-19		Binary SearchTreesDefinition, SearchingaBST	11
66	30-Aug-19		Tutorial	
67	31-Aug-19		Insertionintoa BinarySearchTree	12
68	3-Sep-19		DeletionfromaBST	13
69	4-Sep-19		Heightof Binary Search Tree	14
70	5-Sep-19		Unit – IV Test	
71	6-Sep-19		Tutorial	
72	7-Sep-19	V	TheGraph ADT, Introduction, Definition	1
73	9-Sep-19		Graph Representation, Elementary Graph Operation	2
74	11-Sep-19		DepthFirst Search	3
75	12-Sep-19		Breadth First Search	4
76	13-Sep-19		Tutorial	
77	16-Sep-19		ConnectedComponents, Spanning Trees	5
78	17-Sep-19		BiconnectedComponents	6
79	18-Sep-19		MinimumCostSpanning Trees, Kruskal’sAlgorithm	7
80	19-Sep-19		Prim’s Algorithm, Sollin’ s Algorithm	8
81	20-Sep-19		Tutorial	
82	21-Sep-19		Single Source/All Destination: Nonnegative EdgeCost	9

83	23-Sep-19		Single Source/AllDestination:General Weights	10
84	24-Sep-19		All-Pairs Shortest Path	11
85	25-Sep-19		TransitiveClosure	12
86	26-Sep-19		Unit - V Test	
87	27-Sep-19		Tutorial	
88	28-Sep-19	VI	Insertion Sort	1
89	30-Sep-19		Quick Sort	2
90	1-Oct-19		MergeSort Merging, IterativeMergeSort	3
91	3-Oct-19		RecursiveMergeSort	4
92	4-Oct-19		Tutorial	
93	5-Oct-19		Heap Sort	5
94	7-Oct-19		Revision	
95	9-Oct-19		Revision	
96	10-Oct-19		Revision	
97	11-Oct-19		Revision	
98	12-Oct-19		Revision	

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Faculty Member

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