

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

SUBJECT: Design and Analysis of Algorithms

ACADEMIC YEAR: 2018-19

NAME: G. PRASUNA

YEAR & SEM/SECTION: III-II/A

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

S. NO	DATE	UNIT	TOPICS	
1	19-Nov-18	I	I Unit- Introduction	1
2	20-Nov-18		What is an Algorithm	2
3	22-Nov-18		Algorithm Specification-Pseudocode Conventions	3
4	23-Nov-18		Recursive Algorithm	4
5	24-Nov-18		Tutorial	
6	26-Nov-18		Performance Analysis-Space Complexity	5
7	27-Nov-18		Time Complexity	6
8	28-Nov-18		Amortized Complexity	7
9	29-Nov-18		Asymptotic Notation	8
10	30-Nov-18		Performance Measurement.	9
11	1-Dec-18		Tutorial	
12	3-Dec-18		Revision	
13	4-Dec-18		Unit I Exam	
14	5-Dec-18	II	II Unit -Divide and Conquer: General Method	1
15	6-Dec-18		Defective Chessboard	
16	7-Dec-18		Binary Search	3
17	8-Dec-18		Tutorial	
18	10-Dec-18		Finding the Maximum and Minimum	4
19	11-Dec-18		Merge Sort	5
20	12-Dec-18		Revision	
21	13-Dec-18		Quick Sort	6
22	14-Dec-18		Quick Sort - Performance Measurement	7
23	15-Dec-18		Tutorial	
24	17-Dec-18		Randomized Sorting Algorithms.	8

25	18-Dec-18		Revision		
26	19-Dec-18		Unit II Exam		
27	20-Dec-18	III	The Greedy Method: The General Method -Knapsack Problem	1	
28	21-Dec-18		Job Sequencing with Deadlines		
29	22-Dec-18		Tutorial		
30	26-Dec-18		Minimum-cost Spanning Trees	3	
31	27-Dec-18		Prim's Algorithm	4	
32	28-Dec-18		Kruskal's Algorithms	5	
33	29-Dec-18		Tutorial		
34	31-Dec-18		An Optimal Randomized Algorithm	6	
35	2-Jan-19		Optimal Merge Patterns	7	
36	3-Jan-19		Single Source Shortest Paths	8	
37	4-Jan-19		Revision		
38	5-Jan-19		Tutorial		
39	7-Jan-19		Revision	Revision- Unit I	
40	8-Jan-19			Revision - Unit - II	
41	9-Jan-19	Revision - Unit -III			
42	10-Jan-19	Revision			
43	11-Jan-19	Revision			
44	13-Jan-19	Revision			
45	17-Jan-19	I Mid	Revision		
46	18-Jan-19		Revision		
47	19-Jan-19		Revision		
48	21-Jan-19		Revision		
49	22-Jan-19		Revision		
50	23-Jan-19		Revision		
51	24-Jan-19		Unit IV-Dynamic Programming: The General Method	1	
52	25-Jan-19		All - Pairs Shortest Paths	2	
53	27-Jan-19		Single – Source Shortest paths General Weights	3	

54	28-Jan-19	IV	Single – Source Shortest paths General Weights	4
55	29-Jan-19		String Edition	5
56	30-Jan-19		String Edition	6
57	31-Jan-19		Revision	
58	1-Feb-19		0/1 Knapsack	7
59	2-Feb-19		Tutorial	
60	4-Feb-19		0/1 Knapsack	8
61	5-Feb-19		Reliability Design	9
62	6-Feb-19		Unit IV Exam	
63	7-Feb-19		V	Unit V-Backtracking: The General Method
64	8-Feb-19	The 8-Queens Problem		2
65	11-Feb-19	The 8-Queens Problem		3
66	12-Feb-19	Revision		
67	13-Feb-19	Sum of Subsets		
68	14-Feb-19	Sum of Subsets		5
69	15-Feb-19	Graph Coloring		6
70	16-Feb-19	Tutorial		
71	18-Feb-19	Hamiltonian Cycles		7
72	19-Feb-19	Hamiltonian Cycles		8
73	20-Feb-19	Unit V Exam		
74	21-Feb-19			Unit VI-Branch and Bound: The Method
75	22-Feb-19		Least cost (LC) Search	2
76	23-Feb-19		The 15-Puzzle: an Example	3
77	25-Feb-19		Revision	
78	26-Feb-19		Tutorial	
79	27-Feb-19		Control Abstraction for LC-Search Bounding, FIFO Branch-and-Bound, LC Branch and Bound	4
80	28-Feb-19		0/1 Knapsack Problem- LC Branch-and Bound Solution	5
81	1-Mar-19		0/1 Knapsack Problem- FIFO Branch-and Bound Solution	6
82	2-Mar-19		Traveling Salesperson- LC Branch-and Bound Solution	

83	4-Mar-19		Traveling Salesperson- FIFO Branch-and Bound Solution	
84	5-Mar-19		Tutorial	
85	6-Mar-19	Revision	Revision on Unit I	
86	7-Mar-19		Revision on Unit I	
87	8-Mar-19		Revision on Unit II	
88	10-Mar-19		Revision on Unit II	
89	11-Mar-19		Revision on Unit III	
90	12-Mar-19		Revision on Unit III	
91	13-Mar-19		Revision on Unit IV	
92	14-Mar-19		Revision on Unit IV	
93	15-Mar-19		Revision on Unit V	
94	16-Mar-19		Revision on Unit V	
95	18-Mar-19		Revision on Unit VI	
96	19-Mar-19		Revision on Unit VI	
97	20-Mar-19		Previous Papers	
98	21-Mar-19		Important Questions	
99	22-Mar-19		Important Questions	
100	23-Mar-19		Tutorial	
101	25-Mar-19		II Mid	Revision
102	26-Mar-19			Revision
103	27-Mar-19	Revision		
104	28-Mar-19	Revision		
105	29-Mar-19	Revision		
106	30-Mar-19	Revision		

TEXT BOOKS:

1. Fundamentals of computer algorithms E. Horowitz S. Sahni, University Press
2. Introduction to Algorithms Thomas H. Cormen, PHI Learning

REFERENCE BOOKS

1. The Design and Analysis of Computer Algorithms, Alfred V. Aho, John E. Hopcroft, Jeffrey D. Ullman
2. Algorithm Design, Jon Kleinberg, Pearson.

Faculty Member

HOD

Teaching	50
Tutorial	12
Revision	28
Mid	12
Unit	4
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