

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: D MADHURI

YEAR & SEM/SECTION: III-II/A

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

S. NO	DATE	UNIT	TOPICS
1	18-Nov-19	I	Introduction: What is an Algorithm
2	18-Nov-19		Algorithm Specification
3	19-Nov-19		Pseudocode Conventions
4	21-Nov-19		Recursive Algorithm
5	22-Nov-19		Performance Analysis
6	23-Nov-19		Space Complexity
7	25-Nov-19		Time Complexity
8	25-Nov-19		Tutorial
9	26-Nov-19		Amortized Complexity
10	28-Nov-19		Amortized Complexity
11	29-Nov-19		Practical Complexities
12	30-Nov-19		Performance Measurement
13	2-Dec-19		REVISION (PPT)
14	2-Dec-19		Tutorial
15	3-Dec-19		SLIP TEST 1
16	5-Dec-19	II	Divide and Conquer: General Method
17	6-Dec-19		Defective Chessboard
18	7-Dec-19		Binary Search
19	9-Dec-19		Finding the Maximum and Minimum
20	9-Dec-19		Tutorial
21	10-Dec-19		Merge Sort
22	12-Dec-19		Quick Sort
23	13-Dec-19		Performance Measurement
24	14-Dec-19		Randomized Sorting Algorithms
25	16-Dec-19		REVISION (PPT)
26	16-Dec-19		Tutorial
27	17-Dec-19		SLIP TEST 2
28	19-Dec-19		The Greedy Method: The General Method
29	20-Dec-19		Knapsack Problem
30	21-Dec-19		Job Sequencing with Deadlines
31	23-Dec-19		Minimum-cost Spanning Trees
32	23-Dec-19		Tutorial
33	26-Dec-19		Minimum-cost Spanning Trees
34	27-Dec-19		Prim's Algorithm
35	28-Dec-19		Kruskal's Algorithms
36	30-Dec-19		An Optimal Randomized Algorithm
37	30-Dec-19		Tutorial

38	31-Dec-19		Optimal Merge Patterns
39	2-Jan-20		Single Source Shortest Paths
40	3-Jan-20	III	REVISION (PPT)
41	4-Jan-20		REVISION
42	6-Jan-20		REVISION
43	6-Jan-20		REVISION
44	7-Jan-20		REVISION
45	9-Jan-20		REVISION
46	10-Jan-20		REVISION
47	13-Jan-20		MID EXAM I
48	13-Jan-20		MID EXAM I
49	18-Jan-20		MID EXAM I
50	20-Jan-20		MID EXAM I
51	20-Jan-20		MID EXAM I
52	21-Jan-20		MID EXAM I
53	23-Jan-20		MID EXAM I
54	24-Jan-20		IV
55	25-Jan-20	All - Pairs Shortest Paths	
56	27-Jan-20	Single – Source Shortest paths General Weights	
57	27-Jan-20	Tutorial	
58	28-Jan-20	Single – Source Shortest paths General Weights	
59	30-Jan-20	String Edition	
60	31-Jan-20	String Edition	
61	1-Feb-20	0/1 Knapsack	
62	3-Feb-20	0/1 Knapsack	
63	3-Feb-20	Tutorial	
64	4-Feb-20	Reliability Design	
65	6-Feb-20	Examples	
66	7-Feb-20	REVISION (PPT)	
67	10-Feb-20	SLIP TEST 4	
68	10-Feb-20	Tutorial	
69	11-Feb-20	V	Backtracking: The General Method
70	13-Feb-20		The 8-Queens Problem
71	14-Feb-20		The 8-Queens Problem
72	15-Feb-20		Sum of Subsets
73	17-Feb-20		Graph Coloring
74	17-Feb-20		Tutorial
75	18-Feb-20		Graph Coloring
76	20-Feb-20		Hamiltonian Cycles
77	21-Feb-20		REVISION (PPT)
78	22-Feb-20		SLIP TEST 5
79	25-Feb-20		Branch and Bound: The Method, Least cost (LC) Search
80	27-Feb-20		The 15-Puzzle: an Example
81	28-Feb-20		Control Abstraction for LC-Search
82	29-Feb-20		Bounding
83	2-Mar-20		FIFO Branch-and-Bound

84	2-Mar-20		Tutorial
85	3-Mar-20		LC Branch and Bound
86	5-Mar-20		0/1 Knapsack Problem
87	6-Mar-20		LC Branch-and Bound Solution
88	7-Mar-20		LC Branch-and Bound Solution
89	9-Mar-20		FIFO Branch-and-Bound Solution
90	9-Mar-20		Tutorial
91	10-Mar-20		FIFO Branch-and-Bound Solution
92	12-Mar-20	VI	Traveling Salesperson
93	13-Mar-20		REVISION
94	16-Mar-20		REVISION
95	16-Mar-20		REVISION
96	17-Mar-20		REVISION
97	19-Mar-20		REVISION
98	20-Mar-20		REVISION
99	21-Mar-20		REVISION
100	23-Mar-20		MID EXAM II
101	23-Mar-20		MID EXAM II
102	24-Mar-20		MID EXAM II
103	26-Mar-20		MID EXAM II
104	27-Mar-20		MID EXAM II
105	28-Mar-20		MID EXAM II
106	30-Mar-20		REVISION
107	30-Mar-20		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