ST.ANN'S COLLEGE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
LECTURE SCHEDULE

SUBJECT: Design and Analysis of Algorithms **ACADEMIC YEAR: 2018-19**
FACULTY: A.V.S.SUDHAKARA RAO **YEAR/SEM /SECTION: III – II 'B '**
No. of Lectures per Week: 4+1*(Tutorial)

S.No	Date	UNIT	TOPIC TO BE COVERED
1	19/11/2018	I	**Introduction:** What is an Algorithm, Algorithm Specification
2	20/11/2018		Pseudocode Conventions Recursive Algorithm,
3	22/11/2018		Performance Analysis, Space Complexity,
4	24/11/2018		Time Complexity,
5	26/11/2018		Amortized Complexity,.
6	27/11/2018		Asymptotic Notation
7	28/11/2018		Asymptotic Notation
8	29/11/2018		TUTORIAL
9	01/12/2018		Practical Complexities
10	03/12/2018		Performance Measurement
11	04/12/2018		Revision of UNIT-1
12	05/12/2018		Unit Test-1
13	06/12/2018		TUTORIAL
14	08/12/2018	II	**Dived and Conquer:** General Method,
15	10/12/2018		Defective Chessboard,
16	11/12/2018		Binary Search,
17	12/12/2018		Finding the Maximum and Minimum,.
18	13/12/2018		TUTORIAL
19	15/12/2018		Merge Sort,
20	17/12/2018		Quick Sort,
21	18/12/2018		Performance Measurement
22	19/12/2018		Randomized Sorting Algorithms
23	20/12/2018		TUTORIAL
24	22/12/2018		Revision on UNIT-2
25	26/12/2018		Unit Test - 2
26	27/12/2018		TUTORIAL
27	29/12/2018	III	**The Greedy Method**: The General Method.
28	31/12/2018		Knapsack Problem,
29	02/01/2019		Job Sequencing with Deadlines,
30	03/01/2019		TUTORIAL
31	05/01/2019		Minimum-cost Spanning Trees, Prim's Algorithm,
32	07/01/2019		Kruskal's Algorithms,
33	08/01/2019		An Optimal Randomized Algorithm,
34	09/01/2019		Optimal Merge Patterns,
35	10/01/2019		Single Source Shortest Paths
36	17/01/2019		TUTORIAL
37	19/01/2019	MID-1	MID-1 REVISION
38	21/01/2019		MID-1 REVISION
39	22/01/2019		MID-1 REVISION
40	23/01/2019		MID-1 REVISION
41	24/01/2019		TUTORIAL

42	28/01/2019	IV	Dynamic Programming: Introduction
43	29/01/2019		All - Pairs Shortest Paths,
44	30/01/2019		Single – Source Shortest paths General Weights,
45	31/01/2019		TUTORIAL
46	02/02/2019		String Edition
47	04/02/2019		String Edition
48	05/02/2019		0/1 Knapsack
49	06/02/2019		0/1 Knapsack
50	07/02/2019		TUTORIAL
51	11/02/2019		Reliability Design.
52	12/02/2019		Reliability Design.
53	13/02/2019		Revision of UNIT-4
54	14/02/2019		TUTORIAL
55	16/02/2019		Unit TEST- 4
56	18/02/2019	V	**Backtracking: Backtracking:** The General Method,.
57	19/02/2019		The 8-Queens Problem
58	20/02/2019		The 8-Queens Problem
59	21/02/2019		TUTORIAL
60	23/02/2019		Sum of Subsets
61	25/02/2019		,Sum of Subsets
62	26/02/2019		Graph Coloring
63	27/02/2019		Hamiltonian Cycles
64	28/02/2019		TUTORIAL
65	02/03/2019		Revision of UNIT-5
66	05/03/2019		Unit TEST-5
67	06/03/2019	VI	**Branch and Bound:** The Method, Least cost (LC) Search,
68	07/03/2019		TUTORIAL
69	11/03/2019		The 15-Puzzle: an Example,
70	12/03/2019		Control Abstraction for LC-Search,
71	13/03/2019		Bounding, FIFO Branch-and-Bound,
72	14/03/2019		TUTORIAL
73	16/03/2019		LC Branch and Bound,
74	18/03/2019		0/1 Knapsack Problem, LC Branch-and Bound Solution
75	19/03/2019		, FIFO Branch-and-Bound Solution,
76	20/03/2019		Traveling Salesperson.
77	23/03/2019		Traveling Salesperson.
78	25/03/2019		REVISION
79	26/03/2019		REVISION
80	27/03/2019		REVISION
81	28/03/2019		TUTORIAL
82	30/03/2019		REVISION

TEXT BOOKS:

1. Fundamentals of Computer Algorithms, Ellis Horowitz, Satraj Sahni and Rajasekharam, Universities Press.
2. Design and Analysis of Algorithms , S Sridhar, Oxford
3. Design and Analysis of Algorithms, Parag Himanshu Dave, Himansu BAlachandra Dave, 2ed,Pearson Education.

REFERENCE BOOKS:

1. Design and Analysis of algorithms, Aho, Ullman and Hopcroft,Pearson education.
2. Introduction to the Design and Analysis of Algorithms, Anany Levitin, PEA

FACULTY **HOD**