

**PANIPAT INSTITUTE OF ENGINEERING AND TECHNOLOGY
PANIPAT**

**Department of Computer Science & Engineering
COURSE PLAN**

Name: -Aakanksha Mahajan

Subject Name: - DAA

Branch/Semester: - 5th SEM/ CSE D

Subject Code:-CSE-305N

Sr. No.	Lecture No.	Topics To Be Covered	Covered On
1	L 1	UNIT-1 Review: Elementary Data Structures	16-7-19
2	L 2	Algorithms & its complexity (Time & Space)	17-7-19
3	L 3	Analysing Algorithms	22-7-19
4	L 4	Asymptotic Notations	23-7-19
5	L 5	Heap Sort	24-7-19
6	L 6	Priority Queue	29-7-19
7	L 7	Quick Sort	30-7-19
8	L 8	Merge Sort	31-7-19
9	L 9	Recurrence relation:- Methods for solving recurrence(Substitution Method, Recursion tree)	5-8-19
10	L 10	Recurrence relation : Master theorem	6-8-19
11	L 11	Strassen multiplication	7-8-19
12	L 12	Advanced data Structures:- Binomial heaps,	12-8-19
13	L 13	Advanced data Structures : Splay Trees	13-8-19
14	L 14	Fibonacci heaps	14-8-19
15	L 15	Red-Black Trees	19-8-19
16	L 16	UNIT-II Advanced Design and analysis Techniques Dynamic programming:- Elements	20-8-19
17	L 17	Matrix-chain multiplication	21-8-19
18	L 18	Longest common subsequence	26-8-19
19	L 19	Greedy algorithms:- Elements , Activity- Selection problem	27-8-19
20	L 20	Huffman codes	28-8-19
21	L 21	Task Scheduling Problem	2-9-19
22	L 22	Travelling Salesman Problem	3-9-19
23	L 23	Knapsack Problem	4-9-19

24	L 24	Backtracking algorithms:- Graph coloring	9-9-19
25	L 25	N-Queen problem	10-9-19
26	L 26	Hamiltonian path and circuit	11-9-19
27	L 27	UNIT-3 Graph Algorithms Review of graph algorithms :DFS	16-9-19
28	L 28	Breadth First Search	17-9-19
29	L 29	Topological sort	18-9-19
30	L 30	Strongly connected components	25-9-19
31	L 31	Minimum Spanning Tree : Kruskal Algorithm	30-9-19
32	L 32	Minimum Spanning Tree : Prim's Algorithm	1-10-19
33	L 33	Single source shortest paths, relaxation, Dijkstras algorithm	7-10-19
34	L 34	Single source shortest paths: Bellman- Ford algorithm	9-10-19
35	L 35	Single source shortest paths for directed acyclic graphs	14-10-19
36	L 36	Floyd-Warshall algorithm	15-10-19
37	L 37	UNIT-4 : Sorting Networks	16-10-19
38	L 38	Comparison Network	23-10-19
39	L 39	Bitonic Sorting Network	30-10-19
40	L 40	Merging Network	4-11-19
41	L 41	Computational Complexity:-Basic Concepts	5-11-19
42	L 42	Polynomial vs Non-Polynomial Complexity	6-11-19
43	L 43	NP- hard algorithm	11-11-19
44	L 44	NP-complete classes algorithm	12-11-19
45	L 45	Ford- Fulkerson method	13-11-19
46	L 46	0-1 Principle	18-11-19
47	L 47	Max. Bipartite Matching	19-11-19
48	L 48	Max- Flow Min- Cut Theorem	20-11-19