

Course: Introduction to algorithms and analysis

Course Code: noc20-cs93

Session: 2019-20

Duration: 12 Weeks

Assessment procedures: Weekly Assignment (25%) + proctored certification Exam (75%)

Curriculum of the Course:

Week 1: Sorting problem, time complexity, asymptotic analysis.

Week 2: Solving recurrence, Divide-and-Conquer.

Week 3: Quicksort and Heap Sort, Decision Tree.

Week 4: Linear time Sorting, Order Statistics.

Week 5: Hash Function, Binary Search Tree (BST) Sort.

Week 6: Randomly build BST, Red Black Tree, Augmentation of data structure.

Week 7: Van Emde Boas, Amortized analysis, Computational Geometry.

Week 8: Dynamic Programming, Graphs, Prim's Algorithms.

Week 9: BFS & DFS, Shortest path problem, Dijkstra, Bellman Ford.

Week 10: All pairs shortest path, Floyd-Warshall, Johnson Algorithm.

Week 11: More amortized analysis, disjoint set data structure.

Week 12: Network flow, computational complexity.

List of students enrolled

1	Ritika Agarwal
2	Aman Singh
3	Amit Kumar
4	Apoorva
5	Apoorva Khandelwal
6	Arjun Chhipa
7	Atishay Harsola
8	Chhavi Jangid
9	Chirag Bhayana
10	Chitwan Agarwal
11	Vijay Choudhary
12	Pradeep Dhupar
13	Dinesh Jajoo
14	Divyansh Sharma
15	Dinesh Kumar Tak

16	Eklavya Joshi
17	Faizan Khan
18	Farhan Rehman
19	Gagandeep Singh
20	Garvit Jaiswal
21	Gaurav Vijayvergiya
22	Gaurav Agarwal
23	Hemant Patwari
24	Harsh Modi
25	Harshit Gupta
26	Harsh Vardhan Goel
27	Jahanvi Rathi
28	Shobhit Jain
29	Jayesh Singh
30	Jitendra Kumar Prajapt

31	Joginder Singh
32	Kalpana Modi
33	Karan Chauhan
34	Karan Aggarwal
35	Kartik Saini
36	Yash Khandelwal
37	Khushboo Rathore
38	Kritika Surana
39	Kshitij Khandelwal
40	Kshitij Kumawat
41	Lokesh Choubisa
42	Mansi Jain
43	Chirag Jain
44	Mudit Maheshwari
45	Naman Joshi
46	Naman Bachlas
47	Nikhil Sharma
48	Nishita Tolani
49	Nupur Mathur
50	Ayush Podar
51	Pooja Rathore
52	Pravesh Jain
53	Priti Agarwal
54	Radhika Malpani
55	Rajat Malik
56	Parikshit Rathore

57	Rangnath Ram
58	Rishabh Mangal
59	Ritika Jain
60	Rahul Bhati
61	Rohit-Verma
62	Ritesh Sharma
63	Sushil Kumar Sadhnani
64	Sagar Alwani
65	Sakshi Khandelwal
66	Mayank Saxena
67	Jagrati Sharma
68	Shivam Todwal
69	Shiv Maheshwari
70	Rishi Singhal
71	Manasvini Sharma
72	Sneha Khandelwal
73	Suryapratapsingh
74	Sachin Yadav
75	Tanmay Bhargava
76	Utsav Yadav
77	Iqjot Valecha
78	Vinay Vyas
79	Vishnu Sharma
80	Vishakha Agarwal
81	Vishal Prajapat
82	Yash Gupta