

**Department of MACS, NITK Surathkal**  
**MCA801 Computer Algorithms**  
**Programming Assignment-Demonstration schedule**

Note:

1. The report should be submitted on or before 09-NOV-2018 by 4.00 PM.
2. Report must include (i) Algorithm and its analysis (ii) Snapshot of output
3. Demonstration schedule will be as per the following table
4. Program will be tested for large inputs; input data from file;
5. Use adjacency list representation for problems on graphs.

Marks Distribution	
Mid Sem	25%
Programming Assignment	20%
Quiz	10%
End Sem	45%

**Venue: MACS meeting room**

1.

SLNo	Problem	Roll nos		Schedule of Demo
1	Randomized Selection problem	For all		
2	Selection in worst case linear time (by groups of 5)	For all		
3	Fully parenthesize a given chain of Matrices	174CA001	174CA043	10 Nov. 2018, 9:30
4	Longest Common Subsequence problem	174CA004	174CA044	
5	Consider 2 sorted arrays X and Y of size n1 and n2 respectively. Find the median of combined array in $O(\log n)$ time.	174CA005	174CA045	
6	Find the $i^{\text{th}}$ smallest of combined arrays X and Y of Qn.5 in $O(\log n)$ time.	174CA007	174CA049	
7	Rod Cutting Problem (DP) (top down and bottom up)	174CA009	174CA050	10 Nov. 2018, 10:00
8	Obtain an optimal BST for a given keys and corresponding probabilities	174CA010	174CA051	
9	Dynamic programming for integer knapsack problem	174CA011	174CA055	
10	Obtain DFS traversal for a directed graph and list back edges, cross edges and tree edges	174CA012	174CA057	