

Academic Year: 2015-16(EVEN)

Scheme: 2010

Course: Analysis and Design of Algorithms (10CS43)

Sem: 4

	Course Outcomes	POs/ PSOs	CL	Class Sessions (approximate)	Tutorial (Hrs)	Lab Sessions (Hrs)
CO1	Understand the notion of an algorithm, asymptotic notations, Mathematical analysis of recursive –non recursive algorithms and Brute-force Techniques.	PO1/ PSO1	U	10	NA	NA
CO2	Understand the algorithm design techniques divide and conquer, dynamic programming, greedy method, decrease and conquer, Backtracking, Branch and Bound strategy.	PO1/ PSO1	U	9	NA	NA
CO3	Analyze the complexity of algorithm design techniques divide and conquer, dynamic programming, greedy method, decrease and conquer, Backtracking, Branch and Bound strategy.	PO2/ PSO1	A	9	NA	NA
CO4	Solve problems on divide and conquer, dynamic programming, greedy method.	PO3/ PSO1	AP	8	NA	NA
CO5	Solve problems on decrease and conquer, Backtracking, Branch and Bound strategy.	PO3/ PSO1	AP	8	NA	NA
CO6	Understand the Limitations of Algorithmic power, Pram Algorithms	PO1/ PSO1	U	8	NA	NA
Total Hours of instruction				52		

Academic Year: 2015-16(EVEN)

Scheme : 2010

Course: Analysis and Design of Algorithms Lab (10CSL47)

Sem :4

	Course Outcomes	POs/ PSOs	CL	Class Sessions (approximate)	Tutorial (Hrs)	Lab Sessions (Hrs)
CO1	Calculate the time complexity for Floyds, Merge sort using Parallel Programming	PO1, PO2, PO3/ PSO1	AP	2	NA	8
CO2	Implement the programs for quicksort using Divide and Conquer and Prim's, Kruskal, Dijkstra Algorithms using Greedy Method.	PO1, PO2, PO3/ PSO1	AP	2	NA	10
CO3	Implement the programs for 0/1 knapsack, Warshalls using the dynamic programming and BFS, DFS, Topological ordering using Decrease and Conquer	PO1, PO3/ PSO1	AP	2	NA	8
CO4	Implement the programs for n-queens using backtracking and Sum of Subset, TSP using branch and bound strategy.	PO1, PO3/ PSO1	AP	2	NA	8
Total Hours of instruction						42 Hrs

Note:

1. **NA** – Not Applicable – Don't Fill the column
2. **U, AP** – blooms taxonomy keywords (Understand, Apply,..)
3. **Class Sessions** – Not Applicable – Don't Fill the column (for theory subjects)
4. **Tutorials** – Not Applicable – Don't Fill the column
5. **Lab Sessions** – Number of hours required to complete the individual Cos (Total number of classes should not exceed the limit provided by university(Ex: 52 hours allotted by university))