The students will be able to

1. Analyze and compare the efficiency of algorithms in terms of running time using asymptotic analysis, and understand how to prove correctness of algorithms (CO1)
2. Be familiar with divide-and-conquer algorithm design techniques and analysis of divide and Conquer algorithms applied to solving various problems like searching, sorting, integer multiplication (CO2)
3. Learn basic graph algorithms and their analysis (CO3)
4. Be familiar with greedy algorithm design technique and its applications in designing various algorithms such as finding shortest paths in a graph, finding minimum spanning trees, Huffman coding etc. (CO4)
5. Learn dynamic programming algorithm design techniques, and its applications in solving some selected real world problems (CO5)
6. To learn basic concepts of randomized algorithms and understand computational tractability of a problem (CO6)