**List of Practicals and Lab Plan**

**Sub: ANALYSIS OF ALGORITHM Year (2022-23)**

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| **Sr. No** | **Aim** | **CO Mapping** | **Weekly Plan** |
| 1. | 1.1 Implementation of Selection sort. \*  1.2 Implementation of Insertion sort. \* | **CSL401.1**, **CSL401.2, CSL401.3** | Third Week  Fourth Week |
| 2. | **Divide and Conquer Approach**  2.1 Finding Minimum and Maximum  2.2 Merge sort  2.3 Quick sort  2.4 Binary search | **CSL401.1**, **CSL401.2, CSL401.3** | Fifth Week  Sixth Week |
| 3. | **Greedy Method Approach**  3.1 Single source shortest path- Dijkstra  3.2 Fractional Knapsack problem  3.3 Job sequencing with deadlines  3.4 Minimum cost spanning trees-Kruskal and Prim’s algorithm | **CSL401.1**, **CSL401.2, CSL401.3** | Eighth Week  NinethWeek |
| 4. | **Dynamic Programming Approach**  4.1 Single source shortest path- Bellman Ford  4.2 All pair shortest path- Floyd Warshall  4.3 0/1 knapsack  4.4 Travelling salesperson problem  4.5 Longest common subsequence | **CSL401.1**, **CSL401.2, CSL401.3** | TenthWeek,  Eleventh Week |
| 5. | **Backtracking and Branch and bound**  5.1 N-queen problem  5.2 Sum of subsets  5.3 Graph coloring | **CSL401.1**, **CSL401.2, CSL401.3** | Twelth Week |
| 6. | **String Matching Algorithms**  6.1 The Naïve string-matching Algorithms  6.2 The Rabin Karp algorithm  6.3 The Knuth-Morris-Pratt algorithm | **CSL401.1**, **CSL401.2, CSL401.3** | Thirteenth Week |