

**DEPARTMENT OF COMPUTER SCIENCE**

**DESIGN AND ANALYSIS OF ALGORITHMS**

**SUBMITTED BY:**

{name}

{roll}

5th Semester - Section {section}

**SUBMITTED TO:**

Department of Computer Science

St. Xavier’s College

Maitighar, Kathmandu

ST. XAVIER’S COLLEGE

MAITIGHAR, KATHMANDU

DESIGN AND ANALYSIS OF ALGORITHMS  
PRACTICAL INDEX SHEET

**B.Sc. CSIT 5th Semester**

T.U. Regd. No.:………………………………… Class Roll No.:.…...................

Name of Student:……………………………….. Year/Sem.:...............………...

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| **S.No.** | **Title of the Experiment** | **Submission Date** | **Signature** | **Remarks** |
| 1 | IMPLEMENT AND ANALYZE INSERTION SORT |  |  |  |
| 2 | IMPLEMENT AND ANALYZE BUBBLE SORT |  |  |  |
| 3 | IMPLEMENT AND ANALYZE SELECTION SORT |  |  |  |
| 4 | PRODUCE COMPARISION REPORT OF WORSE CASE (1, 2 AND 3) |  |  |  |
| 5 | IMPLEMEN AND ANALYZE MERGE SORT ALGORITH |  |  |  |
| 6 | IMPLEMENT AND ANALYZE QUICK SORT ALGORITHM |  |  |  |
| 7 | IMPLEMENT AND ANALYZE RANDOMIZED QUICK SORT ALGORITHM |  |  |  |
| 8 | IMPLEMENT AND ANALYZE HEAP SORT ALGORITHM COMPARE ITS PERFORMANCE WITH MERGE SORT |  |  |  |
| 9 | IMPLEMENT FRACTIONAL KNAPSACK ALGORITHM |  |  |  |
| 10 | IMPLEMENT JOB SEQUENCE WITH DEADLINE ALGORITHM |  |  |  |
| 11 | IMPLEMENT KRUSKALS MST ALGORITHM USING DISJOINT SET OPERATIONS |  |  |  |
| 12 | IMPLEMENT AND ANALYZE PRIMS MST ALGORITHM |  |  |  |
| 13 | IMPLEMENT AND ANALYZE DIJKSTRA'S SHORTEST PATH ALGORITHM |  |  |  |

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| **S.No.** | **Title of the Experiment** | **Submission Date** | **Signature** | **Remarks** |
| 14 | IMPLEMENT AND ANALYZE HUFFMAN CODING ALGORITHM USING HEAPS |  |  |  |
| 15 | IMPLEMENT O/1 KNAPSACK ALGORITHM USING DP PARADIGM |  |  |  |
| 16 | IMPLEMENT AND ALALYZE MATRIX CHAIN MULTIPLICATION ALGORITHM |  |  |  |
| 17 | IMPLEMENT AND ANALYZE STRING EDITING ALGORITHM |  |  |  |
| 18 | IMPLEMENT FIBONACCI NUMBER COMPUTATION USING DP WITH MEMOIZATION APPROACH |  |  |  |
| 19 | IMPLEMENT SUBSET SUM PROBLEM USING BACKTRACKING PARADIGM |  |  |  |
| 20 | IMPLEMENT PROGRAM THAT GIVES THE SOLUTION OF MODULAR LINEAR EQUATION (AX=B (MOD M), WHERE A, B AND M ARE GIVEN) |  |  |  |
| 21 | IMPLELMENT RABIN MILLER PRIMILITY TESTING ALGORITHM |  |  |  |