



लखनऊ विश्वविद्यालय  
University of Lucknow  
(Accredited A++ by NAAC)

Department of Computer Science & Engineering  
Faculty of Engineering and Technology  
University of Lucknow

**B.TECH CSE-AI 3<sup>rd</sup> YEAR / 6<sup>th</sup> SEMESTER**

**Assignment No. : 02**

1. Name of Subject: Design and Analysis of Algorithm
2. Assignment Topic: Greedy Algorithm
3. Subject Code: CS601
4. Unit Covered : Third
5. Date of Issue: 15/03/2024

**Max Marks: 15**

Q	Question Description	MM
1	Given 10 activities along with their start and finish time as $S=(A1, A2, A3, A4, A5, A6, A7, A8, A9, A10)$ $s_i=(1,2,3,4,5,6,7,8,9,10)$ $f_i=(5,3,4,6,7,8,11,10,12,13)$	5
2	Find an optimal Huffman code for the following set of frequencies: a:50 b:25 c:15 d:40 e:75	5
3	Consider the knapsack instance $n=3$ ( $w_1, w_2, w_3$ )= (2, 3, 4) and ( $v_1, v_2, v_3$ )= (2, 3, 5) and $W= 5$ . Find the optimal solution.	5