

Heaven's Light is Our Guide
Computer Science & Engineering
Rajshahi University of Engineering & Technology

Lab Manual

Module-06

Course Title : Sessional based on CSE 2201

Course No. : CSE 2202

Experiment No. 6

Name of the Experiment: Design and Complexity analysis of Greedy algorithm.

Date: 6th Cycle

Algorithms (Greedy Method):

- **Knapsack Problem**
- **Tree Vertex Splitting**
- **Job Sequence with Deadline**
- **Minimum-cost Spanning Tree (Prim's and Kruskal's Algorithm)**
- **Single-source Shortest Path**

Task:

1. Find out the complexity of the above algorithms.
2. Code the above algorithm in any language(i.e. C/C++/Java)
3. Write down a report on it.

Recommended Exercise:

Programming Exercises of Chapter 4: "Greedy Method" of "Fundamentals of Computer Algorithm", Ellis Horowitz, Sartaj Sahni, Sanguthevar Rajasekaran.