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

Lab Manual

Course Code: **CSE 1203 (Sec A)**
Course Title: Sessional based on CSE 1201

Topic 1: [Linear Search]
i)   Draw a flowchart to search an element in array ax[] using sequential search.
ii)   Write a c++ program using class and object for the above algorithm.
iii)   Create a table with the runtime values of the different variables and logical expression of the above C++ program.
iv)   Calculate the complexity of the algorithm.

Topic 2: [Binary Search]
i)   Draw a flowchart to search an element in array ax[] using binary search.
ii)   Write a c++ program using class and object for the above algorithm.
iii)   Create a table with the runtime values of the different variables and logical expression of the above C++ program.
iv)   Calculate the complexity of the algorithm.

[**Menu Program**]: Write a menu program to implement the above two topic. Declare the array and the size of the array as the private members of the class.

```
********* Menu ********

    1.  Create
    2.  Linear Search
    3.  Binary Search
    4.  Display
    5.  Exit
        Enter your option[1-5]:
```

Topic 3: [Sparse Matrix]
i)   Draw a flowchart to store a sparse matrix using 2-D arrays.
ii)   Write a c++ program using class and object for the above algorithm.

N.B: i) Refer to the Lecture Notes **Lect_CSE1201(Arrays).pdf**
    ii) Write the report during the lab hour.