**Assignment 2**

Q.1. what is meaning of Searching. Explain following Searching methods:

1. Linear Search 2. Binary Search

Also find out time complexity of each method.

Q.2 Write an Algorithm of Bubble sort method .Also prove that complexity of this algorithm is O(N2). Where N is number of elements in array.

Q.3. write a program to perform selection sort method. Also explain with example.

Q.4. write an algorithm to find out sum of elements in given array where size of array is N. prove that time complexity of this algo is O (N).

Q.5. Write a Algorithm to perform Insertion Sort Algorithm. Also prove that Time complexity of this algo in Best Case is O(n ) and in worst case is O(n2). Where n is number of elements in array.

Q.6.Find the complexity of the below program:

function(int n)

{

if (n==1)

return;

for (int i=1; i<=n; i++)

{

for (int j=1; j<=n; j++)

{ printf("\*");

break; } } }