**Experiment 1**

1. Introduction to analysis of algorithm : Divide and Conquer Approach
   1. Demonstrate time complexity
   2. Selection sort , insertion sort.
   3. Merge sort, Quick sort, Binary search.
2. **Aim:** Demonstrate time complexity using simple c program.

**Theory:**

#include <cstdio>

#include <time.h>

int main()

{

clock\_t t = clock();

/\*

DO WHATEVER YOU WANT

\*/

t = clock() - t;

printf ("It took me %f seconds.\n",((float)t)/CLOCKS\_PER\_SEC);

return 0;

}

#include <iostream>

int fibo(int which\_one)

{

if(which\_one<=2)

{ return 1;

}

return fibo(which\_one-1) + fibo(which\_one-2);

}

// Lets convert this to DP

int main()

{

for(int i = 1;i<10;i++)

{ std::cout<<fibo(i)<<std::endl;

}

}