**DataStructure Introduction assignments**

Mandatory

1. Refer the code below and estimate the time complexity.

a.

for(i= n ; i > 0; i++){

for(j = 0; j<n;j\*2){

cout<<i;

}

}

Ans: The inner loop does not execute at all, making the time complexity of the entire code snippet **O(n)**.

b.

for(i= n ; i > 0; i++){

//some operation here

}

//m > n

for(j = 0; j<m;j++){

//some operation here

}

Ans: The loops are independent of each other, the total time complexity is the sum of the complexities of the two loops. Therefore, the time complexity is **O(n + m)**.