**Data structure and algorithms**

Day 1- Assignment

Que-1) Find the time complexity for the following scenarios

a.) for(i=1;i<=n;i++)

for(j=i;i<=n;j++)

printf("Hi");

**Sol:**

for(i=1;i<=n;i++) --🡪o(n)

for(j=i;i<=n;j++) -🡪o(n)

printf("Hi");

**T(n)=o(n2)**

Que-2) for(i=1;i<=n;i\*=3)

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

printf("Hello");

**Sol**: i=1, for n= 81

I=1,3,9,27,81--🡪4 steps

3^4=81

3=log81(base 3)

**T(n)=log n(base 3)**