

Day 1 Assignment

Page No.:

Date:

YOUVA

1) Find the time complexity for the following

a)

```
for(i=1; i<=n; i++)  
  for(j=1; j<=n; j++)  
    printf("Hi")
```

Soln:

Here,
Hi will print is n^2 times, Hence
outer loop will execute n times and
inner loop will execute n times

$$= n * n$$
$$= O(n^2)$$

(b)

```
for(i=1; i<=n; i*=3)  
  for(j=1; j<=n; j++)  
    printf("Hello");
```

Soln:

$$O(n)$$