

## Assignment - Day 1

```
1) a = 1
   b = 1
   while (b <= n)
   {
       a = a + 1;
       b = b + 1;
       cout << "Hi";
   }
```

$T(n) = ?$

From the given sets of code, at first  $b$  is 1, the condition is true; therefore  $b = 1 + 1 = 2$ , which satisfies the condition as true,  $b = (n - 1) + 1$ , the condition is true.

$b = n + 1 = \text{false}$   
 $\therefore$  The loop stops

$\therefore T(n) = O(n)$



2] Write the output for the following recursive code snippet for  $n = 3$

```
void fun (int n)
{
```

```
    if (n > 0)
```

```
    {
```

```
        cout << n;
```

```
        fun (n-1);
```

```
        cout << n;
```

```
    } }
```

Output :

3 2 1



## ASSIGNMENT - DAY 2

1) Find the output of the following code snippet

```
int i=0, j=0  
int *p = &i, *q = &j;
```

```
q = p;
```

```
*q = 2;
```

```
cout << i << " " << j;
```

Answer:

$q = p$

$\therefore q$  storing address of  $i$ .

When

$*q = 2,$

$\therefore i$  storing 2

Ans : 2 0