**Question 1:** **What is the time complexity T(n) for the following code snippet?**

a=1;  
b=1;

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

**Ans** : Let us take n=64, then

1st Iteration(1<=64),  
 a=2  
 b=2

2nd Iteration(2<=64),  
 a=3  
 b=3  
.  
.  
.

64th Iteration(64<=65),  
 a=65  
 b=65

And 65th didn’t take place,

So Time Complexity is n.

**Question 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;  
 }  
}

**Ans :**

**Output:** 321123