Q7
```
a=1
b=1
while (b<=n)
{   a= a+1;
    b = b+a;
    cout << "Hi";
}
```

$T(n) = ?$

Here, at first $b = 1$, then condition true, $\therefore b = 1+1 = 2$, condition true...
$b = (n-1)+1$, condition true. $b = n+1$ = false
$\therefore$ Loop ends.

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

Q2 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;
}}
```

Solution

→ n=3 ✓ True

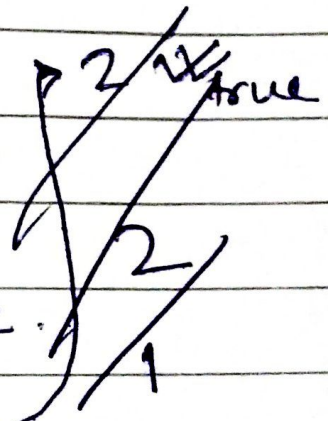
→ (3) o/p

→ 2 ✓ true

→ (2) o/p

1 ✓ true

(1)




Ans: 321