

LAB#11

Example#1: Write a program to display the first N number of natural numbers by using a recursive function.

Solution:

```
1  def fun(n):
2      if n>0:
3          fun(n-1)
4          print(n,end=' ')
5  fun(5)
```

Result:

```
1 2 3 4 5
```

Example#2: Write a program to display the first N number of odd numbers by using a recursive function.

Solution:

```
1  def funodd(n):
2      if n>0:
3          funodd(n-1)
4          print(2*n-1,end=' ')
5
6
7  funodd(5)
```

Result:

```
1 3 5 7 9
```

Example#3: Write a program to print the sum of N natural numbers.

Solution:

```
1  def funsum(n):
2      if n==1:
3          return 1
4      else:
5          return n+funsum(n-1)
6  print('sum is:',funsum(5))
7
8
```

Result:

```
sum is: 15
```

Class Assignment

Q.1: Modify the example#1 lab#11 to display the output in reverse order i.e. 5 4 3 2 1. A recursive function should also be used in this program.

Q.2: Write a program to display the first N even numbers by using a recursive function.

Q.3: Write a program to display the sum of first N even numbers by using a recursive function.

Q.4: Write a program to display the sum of first N odd numbers by using a recursive function.

