

## Problems on Control Statements :

### Group 5 & 11

#### I. Number series

Write a program to find the sum of series  $1+3+5+7+...+N$ .

Write a program to find the sum of series  $1+2+3+...+N$ .

#### Program:

```
n=int(input("enter the number:"))
i=1
sum=0
while(i<n+1):
    sum=sum+i
    i=i+1
print("sum","=",sum)
```

#### output:

```
enter the number:10
sum = 55
```

#### program:

```
n=int(input("enter the number:"))
i=1
sum=0
while(i<n+1):
    sum=sum+i
    i=i+2
print("sum","=",sum)
```

#### output:

```
enter the number:10
sum = 25
```

## II.Number Pyramid - Alternate numbers pattern using while loop

### Program:

```
n=5
x=1
for i in range(1,6):
    for j in range(i):
        print(x,end="")
        x+=2
    print()
```

### output:

```
1
33
555
7777
99999
```

## III. Pyramid Pattern - Equilateral triangle pattern of star

### Program:

```
n=int(input("enter the n:"))
for i in range(0,n):
    for j in range(0,n-i-1):
        print(end=" ")
    for j in range(0,i+1):
        print("*",end=" ")
    print()
```

**output:**

enter the n:6

```
  *
 * *
* * *
* * * *
* * * * *
* * * * * *
```