EXP NO:4

GROUP 3 AND 9

1)NUMBER SERIES

a)2+4+6+8+…+n

b)1+11+111…+n

a)SOURCE CODE:

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

OUTPUT:

enter the range of number:6

the sum of the series= 12

b)SOURCE CODE:

```
n=int(input("enter the range of the number:"))
s=0
sum1=0
print( "series are",end=" ")
for i in range(0,n):
    s=s*10+1
    print(s,end=" ")
    sum1=sum1+s
    print()
print (" series sum=",sum)
```

OUTPUT:

enter the range of the number:5

series are 1

11

111

1111

11111

2)NUMBER PATTERNS

11111

2222

333

44

5

SOURCE CODE:

```
row=5
a=0
for i in range(row,0,-1):
    a+=1
    for j in range(1,i+1):
        print(a,end=" ")
    print('\r')
```

OUTPUT:

 1 1 1 1 1

2 2 2 2

3 3 3

4 4

5

3)REVERSED PYRAMID PATTERN

* * * * * *

 * * * * *

  * * * *

   * * *

    * *

     *

SOURCE CODE:

```
rows=int(input("enter a no"))
for i in range(rows,0,-1):
    for j in range(0,rows-i):
        print(end=" ")
    for k in range(0,i):
        print("*",end=" ")
    print()
```

OUTPUT:

* * * * * *

 * * * * *

  * * * *

   * * *

    * *

     *

4) CHECK THE GIVEN NUMBER IS ARMSTRONG OR NOT

SOURCE CODE:

```
n=int(input("enter the number:"))
num=n
sum=0
while(n>0):
   rem=n%10
   sum=sum+(rem**3)
   n=n//10
if(sum==num):
   print("armstrong no")
else:
   print("not a armstrong no")
```

OUTPUT:

enter the number:153

armstrong no