## 30 JANUARY ASSIGNMENT

```
1)marks = int(input("enter your marks"))
 If marks >90:
      print( "GRADE A")
 elif marks >80 and maks <=90:
      print("GRADE B")
 elif marks >=60 and maks <=80:
      print("GRADE C")
 else:
      print("GRADE D")
2)CP = int(input("enter cost price"):
  if CP > 100000:
     print(15%)
 elif CP >50000 and CP <=100000:
     print(10%)
 else:
      print(5%)
3)city =str(input("ENTER CITY"))
 if city == "Delhi":
    print("Red Fort")
 elif city == "Agra":
     print("Taj Mahal")
 elif city == "Jaipur":
    print("Jal Mahal")
 else:
     print("data available only for Delhi,Agra,Jaipur")
4)number = int(input("enter number"))
 counter = 0
 if number % 3==0
      while number >=10:
           number = number/3
           counter = counter +1
 print(counter)
5)When to use a while loop
*while loop is used when number of iterations is not known
*the while loop will continue to run an infinite number of times until the condition is met .
```

Why to use while loop

\*In a while loop ,initialization is always outside the loop . Before or after the execution Of statements ,updates can be performed.

\*Infinite Loop -if the action inside the loop does not modify the variables being tested in the loops condition,the loop will "run" forever

```
a = 1
   While a ==1:
        b = input ("what is your name")
   Print ("hi",b,"welcome")
6) 1st
n=int(input("enter number of rows"))
  while i <=n:
     j=1
     while j <=i:
        print("*",end=" ")
        j = j+1
     print()
     i=i+1
input=5
Output
***
**2nd
n = int(input('Enter number of rows : '))
i = 1
while i \le n:
  j = n
  while j \ge i:
     print("*", end = " ")
     i -= 1
  print()
  i += 1
```

<sup>\*</sup>Generic syntax

```
**3rd
n = int(input('Enter number of rows : '))
k = 1
i = 1
while i <= n :
  j = 1
  while j <= i:
     print("{:3d}".format(k), end = " ")
    j += 1
     k += 1
  print()
  i += 1
7) i = 10
   While i >0:
    print(i)
    i = i + 1
```