PY1(a) - Calculate Factorial

1(a) Write a program to calculate the factorial of the given number using for loop

```
n=int(input("Enter the number:"))
fact=1
for i in range(1,n+1):
    fact=fact*i
print("The factorial is",fact)
```

output:

```
Enter the number:5
The factorial is 120
```

PY2(a) - Odd or Even

2(a) Write a program using functions to check whether a number is even or odd

```
n=int(input("Enter the number:"))
def oddeven(n):
    if n%2==0:
        print("The number is even")
    else:
        print("The number is odd")
oddeven(n);
```

output 1:

Enter the number:6

The number is even

output 2:

Enter the number:5

The number is odd

PY1(b) - Sum of Series

1(b) Write a program to sum the series: $1/1 + 2^2/2 + 3^3/3 + \ldots\ldots n^n/n$

```
n=int(input("Enter the number:"))
s=0
for i in range(1,n+1):
    a=float(i**i)/i
    s=s+a
print("The sum of series is",s)
```

Output:

Enter the number:4

The sum of series is 76.0

PY2(b) - Reverse the String

2(b) Write a program to create a mirror of the given string. For example, “wel” = “lew“.

```
s=input("Enter the string:")
def rev(s):
    return s[::-1]
```

```
print("The reversed string is:",rev(s))
```

Output:

```
Enter the string: school
The reversed string is: loohcs
```

PY3 – Generate values and remove odd numbers

3(a) Write a program to generate values from 1 to 10 and then remove all the odd numbers from the list

```
a=[]
for i in range(1,11):
    a.append(i)
print("The list from 1 to 10\n",a)
for j in a:
    if j%2==1:
        a.remove(j)
print("List after removing odd numbers\n",a)
```

Output:

```
The list from 1 to 10
 [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
List after removing odd numbers
 [2, 4, 6, 8, 10]
```