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**Exercise 4**

**(1) Use following predefined functions and interpret the results: min() and max()**

**bin(), oct(), hex(), pow()**

**eval() and exec() chr() and ord() round()**

**random(), randint()**

**sin(), cos(), tan(), ceil(), floor(), degrees()**

***Import random* module Random.random() *Import math* module**

**(2)Write a function to sort the contents of an integer list.**

**(3) Write a function to change the case of a given string.**

**(4) The Fibonacci Sequence is the series of numbers:**

**0, 1, 1, 2, 3, 5, 8, 13, 21, 34, ...**

**Write a function recursive) to print n terms of this series based upon user input.**

**CODE**

**Program 1:**

number=[3,56,76,42,12,1,34]

string=['mango','guava','watermelon']

print("Smallest is:",min(number))

print("Largest is:",max(number))

print("Smallest in string is:",min(string))

print("Largest in string is:",max(string))

a=8

print("The bin function:",bin(a))

b=10

print("The oct function:",oct(b))

c=234

print("The Hex function:",hex(c))

x=2

y=3

print("The pow function:",pow(x,y))

print("The eval function:",eval('x+y'))

z='a=5\nb=10\n

print("sum=",a+b)'

exec(z)

print("The chr function:",chr(97))

print("The ord function:",ord('s'))

print("The round function:",round(12.6))

import random print("The random function:",random.random())

print("The randint function:",random.randint(3,9))

import math print("The sin function:",math.sin(0))

print("The cos function:",math.cos(0))

print("The tan function:",math.tan(0))

print("The ceil function:",math.ceil(300.72))

print("The floor function:",math.floor(300.72))

print("The degree function:",math.degrees(math.pi/2))

**Program 2:**

numbers = [1, 3, 4, 2]

numbers.sort(reverse = True)

print(numbers)

**Program 3:**

def swap():

str=”hello WORLD”

print(str.swapcase())

swap()

**Program 4:**  
def Fibonacci\_series(Number):

if(Number == 0):

return 0

elif(Number == 1):

return 1

else:

return (Fibonacci\_series(Number - 2) + Fibonacci\_series(Number - 1))

n = int(input("Enter the value of 'n': "))

print("Fibonacci Series:", end = ' ')

for n in range(0, n):

print(Fibonacci\_series(n), end = ' ')