Output :-

Enter the value : 3

Area is 28.2600

Output :-

Enter the first number : 45

Enter the second number : 55

Enter the third number : 27

The largest number is 55

Date : 14-01-2021

Program No : 1

Aim : Python program to find area

```
def area(r):
    pi = 3.14
    return pi * (r * r);
num = float (input ("Enter the value : "))
print ("Area is %.6f" % area(num));
```

Result : The program has been executed and output was verified

Date : 16-01-2021

Program No : 2

Aim : Python program to find largest among 3 numbers

```
num1 = float (input ("Enter the first number : "))
num2 = float (input ("Enter the second number : "))
num3 = float (input ("Enter the third number : "))
    if (num1 > num2) and (num1 > num3)
        largest = num1
    elif (num2 > num1) and (num2 > num3)
        largest = num2
    else
        largest = num3
print ("The largest number is ", largest)
```

Result : The program has been executed and output was verified.

Output :-

Enter an integer number : 5

Square of 5 is 25

Output :-

The radius of the circle : 4

The area of the circle with radius 4.0 is 50.2654

Output :-

14 squared is 196

20 squared is 400

13 squared is 169

8 squared is 64

6 squared is 36

2 squared is 4

Date: 16-01-2021

Program No: 3

Aim: Python program to find square of a number

```
num = int (input (" Enter an integer number : "))
square = num * num
print ("Square of {num} is {square}")
print
```

Result: The program has been executed and the output was verified.

Date: 26/01/2021

Program No: 4

Aim : Python program to find area of circle

```
from math import pi
r = float (input ("the radius of the circle:"))
print ("The area of circle " + str (r) + " is:" + str (pi * r * 2)).
```

Result: The program has been executed and the output was verified.

Date: 26-01-2021

Program No : 5

Aim : Python program to find square of n

```
list1 = [14, 20, 13, 8, 6, 2]
for n in list1:
    square = n * n
    print (n, squared is , square)
```

Result: The program has been executed and the output was verified.

Output :-

Given string :

Hello .. How are you

The vowels present in the string

{'u', 'a', 'e', 'o'}

Output :-

{'python': 1, 'is': 1, 'a': 1, 'very': 1, 'versatile': 1, 'language': 1}

Date: 26-01-2021

Program No : 6

Aim : Python program to find vowels in a string

```
stringA = "Hello... How are you"
print ("Given string :\n", stringA)
vowels = "aAeEiIoOuU"
res = set ([each for each in stringA if each in vowels])
print ("The vowels present in the string :\n", res)
```

Result : The program has been executed and the output was verified

Date: 26-01-2021

Program No : 7

Aim : Python program to count words in a sentence

```
def word_count (str):
    counts = dict()
    words = str.split()
    for word in words:
        if word in counts:
            counts [word] += 1
        else
            counts [word] = 1
    return counts
print (word_count ('Python is a very versatile language'))
```

Result : The program executed and the output was verified.

Output :

Count of a in the list is : 5

Output :

both list have equal length

Date : 26-01-2021

Program No : 8

Aim : Python program to count a in a list

```
a = ['anjali', 'reenu', 'gretta', 'aamy']
str1 = (' '.join(a))
count = 0
for i in str1:
    if i == 'a':
        count = count + 1
print ("Count of a in the list is :" + str(count))
```

Result : The program has been executed and the output was verified.

Date : 26-01-2021

Program No : 9

Aim : Python program to check the length of list

```
list1 = [1,2,3,4,5,6]
list2 = [9,8,7,6,3,5]
len1 = len(list1)
len2 = len(list2)
if len1 == len2:
    print ('both list have equal length')
else:
    print ('both list doesn't have equal length')
```

Result : The program has executed and the output was verified.

Output :

both list does not have equal sum

Output :

There are common elements

Date : 26 - 01 - 2021

Program No: 10

Aim : Python program to check the sum of list

```
list1 = [9, 4, 3, 7, 2]
list2 = [3, 4, 5, 8, 6]
total1 = sum(list1)
total2 = sum(list2)
if total1 == total2 :
    print ('both list have equal sum')
else :
    print ('both list does not have equal sum')
```

Result : The program has been executed and the output was verified

Date : 26 - 01 - 2021

Program No: 11

Aim : Python program to check the common elements in the list

```
list1 = [2, 3, 7, 5, 6, 9]
list2 = [8, 2, 3, 4, 5, 6]
for value in list1 :
    if value in list2 :
        common = 1
if common == 1 :
    print ("There are common elements")
else :
    print ("No elements are common")
```

Result : The program has executed and the output was verified.

Output :

Oni$n

Output :

nything

Date : 27-01-2021

Program No : 12

Aim : Python program to replace a character

```
def change_char(str1):
    char = str1[0]
    str1 = str1.replace(char, '$')
    str1 = char + str1[1:]
    return str1
print(change_char('onion'))
```

Result : The program has been executed and the output was verified

Date : 27-01-2021

Program No : 13

Aim : Python program to exchange the first and last letter in a string

```
def change_string(str1):
    return str1[-1:] + str1[1:-1] + str1[:1]
print(change_string('python'))
```

Result : The program has been executed and the output was verified.

Output :-

None
{'d': 3, 'e': 2, 'l': 6, 'g': 5}

Output :

Original dictionary : {0:1, 2:3, 4:0, 3:4, 1:2}
Dictionary in ascending order by value : [(4,0), (0,1), (1,2), (2,3), (3,4)]
Dictionary in descending order by value : {3:4, 2:3, 1:2, 0:1, 4:0}

Date : 27-01-2021

Program No: 14

Aim : Python program to merge 2 dictionaries

```
def Merge(dict1, dict2):
    return (dict2.update(dict1))
dict1 = {'l':6, 'g':5}
dict2 = {'d':3, 'e':2}
print(Merge(dict1, dict2))
print(dict2)
```

Result : The program has been executed and the output was verified

Date : 27-01-2021

Program No: 15

Aim : Python program to ascent and descent dictionary

```
import operator
d = {0:1, 2:3, 4:0, 3:4, 1:2}
print('original dictionary : ', d)
sorted_d = sorted(d.items(), key=operator.itemgetter(1))
print('Dictionary in ascending order by value :', sorted_d)
sorted_d = dict(sorted(d.items(), key=operator.itemgetter(1), reverse=True))
print('Dictionary in descending order by value :' sorted_d)
```

Result : The program has been executed and the output was verified

Output :

[10, 13, 26, 29, 38, 50]

list after removing even number :

[13, 29]

Output :

GCD of 144 and 12 is 12

Date: 27-01-2021

Program No: 16

Aim: Python program to remove even numbers from the list

```
list = [10, 13, 26, 29, 38, 50]
print (list)
for i in list :
    if (i%2 == 0):
        list.remove(i)
print (" list after removing even numbers : ")
print (list)
```

Result : The program has been executed and the output was verified.

Date: 27-01-2021

Program No: 17

Aim: Python program to find gcd of number

```
def gcd(a,b):
    if (b == 0):
        return a
    return gcd(b, a%b)
a = 144
b = 12
if (gcd(a,b)):
    print('GCD of', a, 'and', b, 'is', gcd(a,b))
else:
    print('not found')
```

Result : The program has been executed and the output was verified

Output:

Enter a number: 5

The factorial of 5 is 120

Date: 03-02-2021

Program No: 18

Aim: Python program to find factorial of a number

```
num = int(input("Enter a number: "))
factorial = 1
if num < 0:
    print("Sorry, factorial does not exist for negative numbers")
elif num == 0:
    print("The factorial of 0 is 1")
else:
    for i in range(1, num+1):
        factorial = factorial * i
    print("The factorial of", num, "is", factorial)
```

Result: The program has been executed and the output was verified.

Output:

Enter the number of terms : 5

Fibonacci sequence:

0
1
1
2
3

Date : 03-02-2021

Program No: 19

Aim: Python program to find fibonacci series of N terms

```
def recur_fibo(n):
    if n<=1:
        return n
    else
        return (recur_fibo(n-1) + recur_fibo(n-2))
nterms = int(input("Enter the number of terms: "))
if nterms <= 0:
    print("Please enter a positive integer")
else:
    print("Fibonacci sequence:")
    for i in range(nterms):
        print(recur_fibo(i))
```

Result: The program has been executed and the output was verified.

Output:

Streaming

streamingly

Date: 03-02-2021

Program No: 20

Aim: Python program to perform string function

```
def add_string(str1):
    length = len(str1)
    if length >1:
        if str1[-3:] == 'ing':
            str1 += 'ly'
        else:
            str1 += 'ing'
        return str1
print (add_string ('stream'))
print (add_string ('streaming'))
```

Result: The program has been executed and the output was verified.