**Practical no. – 1**

**Aim:** Write a program which demonstrates the following:

**1. Addition of two complex numbers**

**Code**:

a = complex(input("Enter 1st complex number: "))

b = complex(input("Enter 2nd complex number: "))

c = a+b

print(f"Addition of {a} and {b} is {c}")

**Output**:

Enter 1st complex number: 1+2j

Enter 2nd complex number: 3+4j

Addition of (1+2j) and (3+4j) is (4+6j)

**2. Displaying the conjugate of a complex number**

**Code**:

complexNumber = complex(input("Enter a complex number: "))

print(f"Conjugate of {complexNumber} is {complexNumber.conjugate()}")

**Output**:

Enter a complex number: 1+2j

Conjugate of (1+2j) is (1-2j)

**3. Plotting a set of complex numbers**

**Code**:

import numpy as np

import matplotlib.pyplot as plt

s = np.array([1+2j,2+3j,4+5j,5+6j,6+7j,3+4j])

x=s.real

y=s.imag

plt.scatter(x,y,label="Complex Number",color="b",s=25,marker="o")

plt.xlabel("Real number")

plt.ylabel("Imaginary number")

plt.plot(x,y)

plt.show()

**Output**:

