

## 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}")
```

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**Output:**

```
Enter 1st complex number: 1+2j
Enter 2nd complex number: 3+4j
Addition of (1+2j) and (3+4j) is (4+6j)
```

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

**Code:**

```
complexNumber = complex(input("Enter a complex number: "))
print(f"Conjugate of {complexNumber} is {complexNumber.conjugate()}")
```

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**Output:**

```
Enter a complex number: 1+2j
Conjugate of (1+2j) is (1-2j)
```

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### 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:

