

# **CSE 110 Online**

## **Subsection: C2**

### **Topic: Introduction to Classes**

**Full Marks: 20**

**Time: 40 minutes**

1. Define a class ***Complex*** with two private attributes ***re*** and ***im*** which represents the real and imaginary part of a complex number. [Marks: 2]
2. Write down two constructors for ***Complex*** class one of which takes nothing as parameter and initializes all the values to zero, and another one takes two parameters and initializes the values accordingly. [Marks: 4]
3. Define a member function ***void print()*** that will print the ***Complex*** number in standard form. For example,  $3 + 4i$  . [Marks: 2]
4. Define a member function ***Complex add(Complex a)*** that will return another ***Complex*** number that is sum of ***Complex a*** and the caller ***Complex***. [Marks: 5]
5. Define a member function ***Complex multiply (Complex a)*** that will return another ***Complex*** number that is the product of ***Complex a*** and the caller ***Complex***. [Marks: 5]
6. Write a ***main()*** function to demonstrate the functionality implemented in questions 1-5. [Marks: 2]