Date : 15-04-2023 Approved by :

Assignment: 4 Sheet : 1 OF 1

Course :PROGRAMMING Batch No. :

Module :CPP Type Practical : Internal

Time : Marks :

1. Create a class called Book with private data members for title, author, and price. Implement public methods to set and get these values. Demonstrate creating objects and accessing their attributes.
2. Write a class Person with private data members for name and age. Implement a constructor to initialize these values and a destructor to print a message when an object is destroyed. Create and destroy objects to demonstrate the constructor and destructor.
3. Implement a class Box with private data members for length, width, and height. Write a friend function calculateVolume() to calculate the volume of the box. Demonstrate using the friend function to access private members.
4. Create a class Rectangle with private data members for length and width. Implement a copy constructor that copies the values of one rectangle object into another. Demonstrate the use of the copy constructor by creating a new object using an existing object.
5. Write a class Counter that has a static member variable count which keeps track of how many times objects are created. Implement a constructor that increments the count each time an object is created. Demonstrate the functionality by creating multiple objects.
6. Create a class Student with private data members name, age, and rollNumber. Implement multiple constructors: one to initialize all data members, and another to initialize only name and rollNumber. Demonstrate constructor overloading.
7. Create a class Circle with private data member radius. Implement a public member function to calculate and return the area of the circle. Demonstrate creating objects of the class and calling the function to compute the area.
8. Write a program that defines a class Employee with data members name and salary. Create an array of Employee objects and input data for each employee. Display the details of all employees.
9. Create a class Date with private data members day, month, and year. Implement a function printDate(Date d) that accepts an object of Date as an argument and prints the date in the format dd-mm-yyyy. Demonstrate passing objects to the function.
10. Create a class ComplexNumber with private data members real and imaginary. Overload the + operator to add two complex numbers. Demonstrate adding two complex numbers using the overloaded operator.

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Question Paper :ITC-EDU-IE-1204-S-069-1211 Sheet : 2 OF 3

Question Paper :ITC-EDU-IE-1204-S-069-1211 Sheet : 3 OF 3

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