
OBJECT ORIENTED PROGRAMMING – SPRING 2022

Dead line: 22nd Oct 2022

Assignment # 3

Total Marks: 60

Problem 1: [10]

Create a class time and create overloaded increment (++) and decrement (--) operators that operate in both prefix and postfix notation and return values. Add statements to main() to test these operators.

Problem 2: [10]

Add to the time class of Problem 1 the ability to subtract two time values using the overloaded (-) operator, and to multiply a time value by a number of type float, using the overloaded (*) operator.

Problem 3: [10]

Create a class Faculty with the dynamic data members faculty_name, faculty_code, department, experience (in years), salary. Overload stream operators to take input and output without calling any other function.

Problem 4: [10]

Add overloaded assignment operator to the Faculty class created in problem 3.

Hint: Deep copy

Problem 5: [10]

Create a class Matrix having a 2D dynamic array of type float. Overload + (addition) and – (subtraction) operators in such a way that these operators should add two matrices. For addition and subtraction corresponding elements should be added.

Tip: Program wisely to evaluate the same size of the matrices

Problem 6: [10]

Write main function with a menu to execute all the above problems.

Note: create two different files for each problem, One file should be class header file and the other one should contain implementation of the class. Create a single driver file which should provide an interface to run all the code.