

## CS1004 - Object Oriented Programming Quiz 2



## Question 1:

- a. Write a structure specification that includes three variables—all of type int—called hrs, mins, and secs. Call this structure timeType.
- b. Write a statement that sets the hrs member of the time2 structure variable equal to 11.
- c. If you have three variables defined to be of type struct timeType, and this structure contains three int members, how many bytes of memory do the variables use together?
- d. Write a definition that initializes the members of time1 —which is a variable of type struct timeType to hrs = 11, mins = 10, secs = 59.
- e. Define a function that returns a structure variable of type timeType which is the sum of the two timeType variables passed to the function. Make sure that the returned timeType variable contains valid values for hrs, mins and secs.

## Question 2:

A phone number, such as (212) 767-8900, can be thought of as having three parts: the area code (212), the exchange (767), and the number (8900).

Write a program that uses a structure to store these three parts of a phone number separately. Call the structure phoneType. Create two structure variables of type phoneType . Initialize one, and have the user input a number for the other one. Then display both numbers.

The interchange might look like this:

Enter your area code, exchange, and number: 415 555 1212 My number is (212) 767-8900 Your number is (415) 555-1212

## **Question 3:**

What are the disadvantages of passing a structure variable by reference and how can you avoid them?