

Name, Surname :
 Number :
 Course Code :
 Course Name : Computer Programming II
 Exam : Quiz Midterm Final
 Date :13.11.2015

Question Number	1	2	3	4	5	Total
Mark						

- 1-Exam duration is 70 minutes only.
- 2- You cant take any other paper. Please use your paper efficiently!
- 3-You are not permitted to carry your mobile phone into the exam venue even if it is switched off.

Questions

<p>1(30p)-Defination: Numbers of Fibonacci sequence are known as Fibonacci numbers. First few numbers of series are 0, 1, 1, 2, 3, 5, 8 etc, Except first two terms in sequence every other term is the sum of two previous terms, For example 8 = 3 + 5 (addition of 3, 5). This sequence has many applications in mathematics and Computer Science. <u>Write a function that write on the screen just first 20 sequence of fibonacci numbers.</u></p> <p>2(20p)-write a function called hypotenuse that <u>calculates the length of the hypotenuse</u> of a right triangle when <u>the other two sides are given. The function should take two arguments of type double and return the hypotenuse as a double.</u> (if you need square root of some number you can use sqrt function at math.h library. Usage example: a=sqrt(b); which means "a" is equal to square root of "b")</p>	<p>3(30p)- Write a program which has an float array. And the size of array is 20. a-Read all values of array from keyboard. b-Find the smallest element in the array c-Write smallest element on the screen</p> <p>4-(20p) The formulas for calculating BMI are as follows:</p> $BMI = \frac{WeightInKilogramsKilogram}{(heightInMeters)^2}$ <p><u>Create a BMI calculator application</u> that reads the user's weight in kilograms and height in meters, then calculates and displays the user's body mass index. Also, the application should display the following information from the Department of Health and Human Services/National Institutes of Health so the user can evaluate his/her BMI: BMI VALUES <u>Underweight: less than 18.5</u> <u>Normal: between 18.5 and 25</u> <u>Overweight: between 25 and 30</u> <u>Obese: 30 or greater</u></p> $f(x) = \sum_{n=1}^{20} (n \cdot 3x^2)$ <p>5-Write a program to calculate result of $f(x)$ function. <u>Value of "x" is entered by keyboard.</u></p>
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Yrd. Doç. Dr. Oğuz Ata