

ASSIGNMENT #:01

You are required to submit the source code in the syntax of C++ language to solve the problems given bellow.

Submission Date: 18- October -2017

1. Assignment should be in hard copy and soft copy format.
 2. Plagiarism will not be tolerated.
 3. Submission of assignment after the due date, will direct to exercise marks deduction policy.
 4. Use the concept of standard input/output to read and display the values of input and output variables respectively.
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- Q 1:** Write a program that inputs a decimal number and converts it to binary digits.
- Q 2:** Write a program that enter an integer from the user and display Fibonacci numbers upto that number.
- Q 3:** Given the coordinates (x, y) of a center of a circle and it's radius, write a program which will determine whether a point lies inside the circle, on the circle or outside the circle.
(Hint: Use **sqrt()** and **pow()** functions)
- Q 4:** A certain grade of steel is graded according to the following conditions:
(i) Hardness must be greater than 50
(ii) Carbon content must be less than 0.7
(iii) Tensile strength must be greater than 5600
The grades are as follows:
Grade is 10 if all three conditions are met
Grade is 9 if conditions (i) and (ii) are met
Grade is 8 if conditions (ii) and (iii) are met
Grade is 7 if conditions (i) and (iii) are met
Grade is 6 if only one condition is met
Grade is 5 if none of the conditions are met
Write a program, which will require the user to give values of hardness, carbon content and tensile strength of the steel under consideration and output the grade of the steel.
- Q 5:** Write a program that can read 5 integers and then display the:
- Biggest Number
 - Smaller Number
 - Total
 - Average

Q 6: Make an application, as the program will start it displays following menu.

My Calculator

Select from following options

1. Add
2. Subtract
3. Multiply
4. Divide
5. Square
6. Exit

Your choice:

After selection you have to ask user to add two numbers and perform all arithmetic functions.

e.g

Enter first number = 1

Enter 2nd number = 7

Sum of numbers = 8

Q 7: Write a program to calculate the salary as per the following table:

Gender	Years of Service	Qualification	Salary
Male	>=10	Post-graduate	15000
	>=10	Graduate	10000
	<10	Post-graduate	10000
	<10	Graduate	7000
Female	>=10	Post-Graduate	12000
	>=10	Graduate	9000
	<10	Post-Graduate	10000
	<10	Graduate	6000

Q 8: Write a program to fill the entire screen with a smiling face. The smiling face has an ASCII value 1.

Q 9: If the three sides of a triangle are entered though the keyboard, write a program to check whether the triangle is valid or not. The triangle is valid if the sum of two sides is greater than the largest of the three sides.