# Jaypee University of Engineering and Technology, Guna
## Department of Computer Science and Engineering

### Object Oriented Programming Lab (14B17CI371)

**Lab Exercise-3** **Date 01/08/16**

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[Imp Note:All the programs must be written in C++ with distinguished variable names. If any kind of plagiarism is observed, the punctuality marks (10) will be awarded by zero.]

1. Write a program to display the following output using a single cout statement.

i. Maths = 90

ii. Physics = 77

iii. Chemistry = 69

2. Write a program to input an integer value from keyboard and display on screen "WELL DONE" that many times.

3. Write a program to read the values of a, b and c and display the value of x, where x= a/b-c and test your program for the following values:

i. a =250, b=85, c=25

ii. a=300, b=70, c=70

4. Write a function that returns the minimum and the maximum value in an array of integers. Inputs to the function are the array of integers, an integer variable containing the length of the array and pointers to integer variables that will contain the minimum and the maximum values. The function prototype is:

```
void minmax( int array[], int length, int& min, int & max);
```

5. Create a four-function calculator for fractions. Here are the formulas for the four arithmetic operations applied to fractions:

Addition: a/b + c/d = (a*d + b*c) / (b*d)

Subtraction: a/b - c/d = (a*d - b*c) / (b*d)

Multiplication: a/b * c/d = (a*c) / (b*d)

Division: a/b / c/d = (a*d) / (b*c)

The user should type the first fraction, an operator, and a second fraction. The program should then display the result and ask whether the user wants to continue.