



CL-1002

Programming Fundamentals - Lab

Lab # 5

Objectives:

- Introduction to Visual Studio 2015.
- Basic Input/output
- Basic Arithmetic Operators
- Operators Precedence
- Set width, new line and tab etc.
- Practice tasks

Note: Carefully read the following instructions (*Each instruction contains a weightage*)

1. Use proper **font family** and **font size** of **heading**, **sub heading** and **normal text**.
2. First think about statement problem then write/draw your logic on copy.
3. Attach the screen shots of your code with execution.
4. File (Word) tittle should in proper format (**23F-1001-Lab2**)
5. You have to submit both (word + Project zip) files.
6. **Do not copy from any source otherwise you will be penalized with negative marks.**
7. Complete your lab **within given Time Slot.**

Problem: Write C++ code for the following statements

1. Detail understanding of Visual Studio.

(Marks 09)

- Create Project.
- Create multiple files
- **Use of comments**
- **Build/rebuild project**
- **Step-into/over**
- **Breakpoints**
- Open an existing project from its location.
- Create a zip file of your project.
- Create word file of your tasks (Screen shots)



2. Write a C++ code that displays the following output: (Marks 03)
- a. Welcome to ICIT23
 - b. Welcome, to ICIT23
 - c. Welcome
 to
 ICIT23
- Hint: you can use `\t` or `\n`, `endl` for tab or new line.
3. Write a C++ code that create a variable of integer, set its value and display it using following format: (Marks 02)
- a. ----- 12
 - b. -- 12
- Hint: you can use `setw`.
4. Write a C++ code that creates 2 integers variables, assign them values of your own choice and perform the following arithmetic operations, **save their values in separate variables and displays their results** (Marks 06)
- a. Addition
 - b. Subtraction
 - c. Multiplication
 - d. Division (**use most suitable datatype, that saves its result perfectly**)
 - e. Modulus
5. Write a C++ code that take base and perpendicular height of a triangle **from user and calculates its area.** (Marks 02)
- Hint: use `cin`. Area of Triangle = $\frac{1}{2} * base * perpendicular\ height$
6. Use the concept of parentheses and operator precedence and solve the following task in C++ code: (Marks 05)
- a. $2 * 1 + 2$ (show the expected output and change the output with the help of parentheses ())
 - b. $81 / 5 + 16 / 4 = 9$ (here we have the equation, use parentheses to prove it)

Best of Luck ☺

"A person who never made a mistake never tried anything new" – Albert Einstein