

# Lab Task 5

## Conditional Statements

**Problem 1:** Write a program that reads two integers and outputs the largest.

**Problem 2:** Write a program that reads three integers and outputs the largest.

**Problem 3:** Write a program that reads two integers and outputs them in increasing order.

**Problem 4:** Write a program that reads three integers and outputs them in increasing order.

**Problem 5:** Write a program that reads two integers and outputs the smallest.

**Problem 6:** Write a program that reads three integers and outputs the smallest.

**Problem 7:** Write a program that reads two integers and outputs them in decreasing order.

**Problem 8:** Write a program that reads three integers and outputs them in decreasing order.

**Problem 9:** Write a program that reads three integers and prints the average of these.

**Problem 10:** Write a program that reads the score of a student in a subject and displays his grade according to the following criteria:

Score	Grade
$\geq 90$	A+
80 – 89	A
70 – 79	B
60 – 69	C
50 – 59	D
$< 50$	F

**Problem 11:** Write a program that reads the user's age and then outputs "You are a child." if the age  $< 18$ , "You are an adult." if age  $< 65$ , and "You are a senior citizen." if age  $\geq 65$ .

**Problem 12:** Write and run a program that simulates a simple calculator. It reads two integers and a character. If the character is a +, the sum is printed; if it is a -, the difference is printed; if it is a \*, the product is printed; and if it is a /, the quotient is printed.

**Problem 13:** Write a program that input an integer as an argument and returns True if the argument is an even number and False if it is odd.

**Problem 14:** A year is a leap year if it is divisible by 4 unless it is a century that is not divisible by 400. Write a program that input a year as a parameter and returns ' True' if the year is a leap year, False otherwise.

**Problem 15:** Develop the algorithm of a program that determines the gross pay an employees. The company pays “straight time” for the first 40 hours worked by each employee and pays “time- and-a-half” for all hours worked in excess of 40 hours. Input the number of hours each employee worked last week and the hourly rate of employee. Your program should input this information for employee and should determine and display the employee’s gross pay.

Output:

Enter hours worked (-1 to end): 41

Enter hourly rate of the employee (Rs. 000.00): 100.00

Salary is Rs. 4,150