**University of Sargodha**

**Mandi Bahauddin campus**

**LAB Sheet #2**



**C Lab Report Submitted By:**

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**Submitted To:**

**Department of CS & IT University of Sargodha M.B.Din**

Lab Date: Marks & Signature

Submission Date:

Objective(s):

To be familiar with syntax and structure of C-programming. To learn problem solving techniques using C

Title:

Write a program to declare two integer and one float variables then initialize them to 10, 15, and 12.6. Also print the variable values in the screen.

Algorithm:

* Start
* Define variables: a(int) b(int) c(float)
* Using print command display it
* Stop

Code



Output (Compilation, Debugging & Testing):



Title:

Write a program to swap two variables values with and without using third variables

Algorithm:

* Start
* Define two integer type variables **a** and **b**

**For without using third variable**

a=a-b

b=b+a

a=b-a

**For with third variable**

* Define another int type variable i.e **c**

c=a

a=b

b=c

* Stop

Code



Output (Compilation, Debugging & Testing):



Title:

Print the value of y for given x=2 & z=4 and analyze the output.

Algorithm:

* Start
* Define three variables integer Types  **x z** & **y**
* Apply following operation and then print one by one

A. y = x++ + ++x; b. y= ++x + ++x; c. y= ++x + ++x + ++x;

D. y = x>z; e. y= x>z? x:z; f. y = x&z;

g. y= x>>2 + z<<1;

* stop

Code



Output (Compilation, Debugging & Testing):



Title:

Write a program to calculate simple and compound interest

Problem Analysis:

The problem is to calculate simple & compound interest to understand the formula of simple interest & compound interest start the program declare the float variable integer type variable. Get value from user and put formula of both interest and display result on screen the value form user we get.

Algorithm:

* Start
* Declare float variable
* Declare int type variable
* Get value from user
* Put formula of compound & simple interest
* Stop

Code:



Output: (Compilation, Debugging & Testing):



Title:

Write a program to check odd or even number (a) using modulus operator (b) using bitwise operator (c) without using bitwise and modulus operator (d) using conditional operator.

Problem Analysis:

The problem is to check even or odd numbers using different operation. A bitwise modulus conditional operators to check even or odd number. Display result on screen.

Algorithm:

* Start
* Define variable
* Get value from user
* Using bitwise operator
* Display result on screen
* Stop

Algorithm:

* Start
* Define variable
* Get value from user
* Using modulus operator
* Display result on screen
* Stop

Algorithm:

* Start
* Define variable
* Get value from user
* Without using bitwise or modulus operator
* Display result on screen
* Stop

Code





Output: (Compilation, Debugging & Testing):







Objective(s):

To learn about the variable reverse and forward order in C.

Title:

Write a C program to prompt the user to input 3 integer values and print these values in forward and reversed order.

Problem Analysis:

The problem is to reverse and forward the number. First the declared the number. Then a repetition loop to repeat the number decrement and increment is also for reverse and forward the value.

Algorithm:

* Start
* Define variable three variables
* Display the forward in C
* Display forward and reversed
* Stop

Code:



Output: (Compilation, Debugging & Testing):

