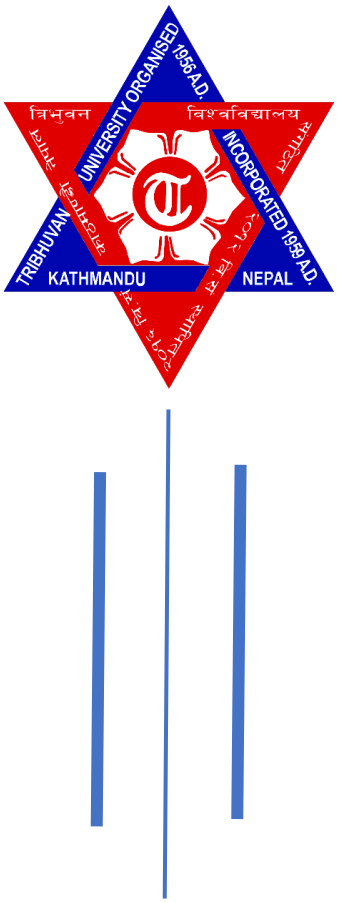
Tribhuvan University
Institute of Science and Technology
Amrit Science Campus, Lainchaur

LAB SHEET



C-Lab Report Submitted By

Name: ……

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Submitted To:

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Submission Date:

S. No	Name of Experiment	Date of Submission	Signature
1	1. Write a program to display “hello world’ in C 2. Write a program to enter two integers and then display their sum 3. Write a program to multiply two numbers (10&8) and display its product. 4. Write a program to calculate simple interest for given P=4000, T=2 , R=5.5.		
2	1. Write a program to prompt the user to input 3 integer values and print these values in forward and reversed order. 2. Write a program that defines a variable and then increments and decrements the value of the variable using the ++ (increment) and – (decrement) operators. Print the value of the variable after each operation to the console. 3. Write a program to calculate simple and compound interest. 4. Write a program to swap two variables’ values with and without using third variables. 5. Write a program to check odd or even number using (a) modulus operator (b) using bitwise operator (c) without using bitwise and modulus operator (d) using conditional operator. 6. Write a program that declares variables of different data types) int, float, char etc.) and prints their sizes using the size of operator.		
3	1. Write a program to produce the output as shown. X y expression results 3 | 3 | x=y+3 | x=6 3 | 3 | x=y-2 | x=1 3 | 3 | x=y*5 | x=15 3 | 3 | x=x/y | x=2 3 | 3 | x=x%y | x=0 2. Given the three numbers a(=8) , b(=4) and constant value of PI =3.1415, calculate and display the following using macros (preprocessor directives). 3. Demonstrate the differences among getch(), getche(), getchar(). Demonstrate the difference between scanf() & gets() , printf() & puts().		
4	1. Write a program to find the largest and smallest among the three entered numbers and also display whether the identified largest/smallest number is even or odd. 2. Write a program to get input of two or higher digit integer number and display inverse order.		

	3. Write a program to read the values of coefficients a, b and c of a quadratic equation $ax^2+bx+c=0$ and find roots of the equation.		
5	1. Write a program to input two integer numbers and display the sum of even numbers between these two input numbers. 2. Write a program to display Fibonacci series of last term up to 300. 3. Write a program using for loop with a break statement to find the first prime number between 1 and 100 and print it. 4. Write a program using while loop to print the number from 10 to 1 to the console. 5. Write a program to display the following pattern. a) 1 1 2 1 2 3 1 2 3 4 1 2 3 4 5 b) * * * * * * * * * * * * * * * c) 1 6 10 13 15 2 7 11 14 3 8 12 4 9 5		
6	1. Write a program to calculate sum of first 50 natural numbers using recursive function. 2. Define a function named fact() to calculate factorial of a number n and then write a program that uses this function fact() to calculate combination and permutation. 3. Write a recursive function to general Fibonacci series.		
7	1. Write a program that creates a one-dimensional array of 5 integers. Assign value to each element of an array and print them to the console 2. Write a program that asks the user to enter 5 integers and store them in an array. Print the elements of the array in the console. 3. Write a program to read two matrices of order 3*2, add them and display the resultant matrix in matrix		

	form. 4. Write a program that defines a function that takes an array of integers as a parameter. The function should print the sum of the elements in the array to the console. Call the function with an array of your choice. 5. Write a program to multiply two 3*3 matrix. 6. Write a program to read a string and check for palindrome without using string related function.		
8	1. Write a program to swap value of two variables using pointer. 2. Write a program to copy one string to another string with and without suing string handling function. 3. Write a program to concatenate two strings. 4. Write a program to sort string words stored in an array of pointers. 5. Write a program to print the following pattern.		
9	1. Create a structure named company which has name, address, phone, no Of Employee as member variables. Read name of company, its address, phone and noOfEmployee. Finally display the members' value. 2. Write a program which accepts structure as argument and returns structure to the calling program. 3. Write a program to read RollNo, Name, Address, Age & average-marks of 12 students in the BCT calls and display the details from functions. 4. Wap that access the members of a structure using dot operator. Create a structure to store information about a rectangle, including its length and width. Compute its area and print to the console. 5. Write a program that creates a pointer to an integer variable and prints its value to the console. Use the * operator to declare the pointer. 6. Write a program that uses pointers to iterate over an array of integers and prints its values to the console. 7. Write a program that uses pointer to structure. Create a structure to store information about book including its title, author, and publication- year. Use a pointer to the structure to access the members of the structure to display in console.		
10	1. Write characters into a file 'file.txt'. The set of characters are read from the keyboard until an enter key is pressed (use putc() and getc() function). 2. Read characters from file "file.txt" created in		

	question 1. Also count the number of character in the file (use fputs() and fgets() function) 3. Write set of strings each of length 40 into a file "string.txt" and display it (use fputs() and fgets() function). 4. Write name, age and height of a person into a data file "person.txt" and read it (use fprintf () and fscanf() function). 5. Write a program that copies the contents of one file to another. Use the fopen() function to open the source file and the destination file,and the use a loop to read and write each character in the source file.		
11	1. Two concentric circles have center point at (100,100). The inner circle should have radius 50 and outer have 75 pixels. 2. Wap that display text using the outtext() function. Experiment with different font, sizes and colors of the text. 3. A rectangle having a diagonal of length 100 pixels and its one end at point (10,20). 4. An ellipse having xRadius=100, yRadius=40 and center at point (100,50).		