

Patan Multiple Campus
Department of Statistics and Computer Science
Patan Dhoka, Lalitpur
B.Sc-CSIT 1st Semester C-Programming Lab Assignments

1. Write a C program to print your name, date of birth and mobile number and Name of College using printf() and puts() functions in following format.

Name:

DOB:

MobileNO:

Campus:

2. Write a C program to display size in bytes of different data types using **sizeof()** operator.
3. Write algorithm, flow-chart and program to compute the area and circumference of a circle with given radius r as input defining π as constant.
4. Write a C program to convert specified no of days into years, weeks and days. (*Note: Ignore leap year.*)
5. Write an algorithm and C program that accepts two integers from the user as input and calculates the sum,diference,product,quotient and remainder applying different arithmetic operators between two integers.
6. Write algorithm pseudo-code as well as draw flow chart to Compute the roots of the quadratic equation $ax^2+bx+c=0$ for given coefficient input a, b and c. Write C program.
7. Write a C program to check a given integer is positive even, negative even, positive odd or negative odd.
8. Write a C program to read the score of student and print the grade according to score as:

Score \geq 80, "Distinction"

Score from 70 to less than 80 " First Division"

Score from 55 to less than 70 " Second Division"

Sore from 40 to less than 55 "Third Division"

Score less than 40, " Fail"

9. Write a C program to find the sum of first 100 natural numbers using loop.
10. Write a program in C to display the multiplication table of 1 to n where n is input number.
11. Write algorithm and program to compute the followings using for, do while and while loop separately.
 - a. factorial of an integer N
 - b. computation of a^b (a raised to power b)

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12. Write a program in C to make such a pattern of astrisk(*) below using loop.

*		*
* *	and	* *
* * *		* * *
* * * *		* * * *

up to n lines where n is an integers

13. Write a program using loop to print the following floyd's triangle as given below when input is n.

```
1
2 3
4 5 6
7 8 9 10
11 12 13 14 up to n rows
```

14. Write a program to get input of two 3x3 matrices and find out the sum and product of the matrices and display the result of sum and product.

15. Write a program to get a string as input and print the length of string, reverse of the string.

- a. Using String Library Function
- b. Using your own function

16. Write a program that takes input of two numbers and any one operator in(+,-,*,/,%) as input and pass those numbers and an operator to the function. The function should calculate the result of two numbers as indicated by operator and return the result . Display the result of computation in your program.

17. Write a program defining an array with dynamic memory allocation of integers and compute the sum of the array using function of your own.

18. Write a program to swap two numbers defining a function swap().

19. Write a program defining a structure to store the data for a student with fields(rollno, f_name, l_name, address, mobileno) , input the data for n students and display the record in appropriate format.

20. Write a program to prompt user to input filename and read the content of file and display in screen.

21. Write a program to read from a text file and count the number of lines and characters in that file.

22. Write a program to read a text file and copy all contents in the new file.
