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KUPONDOLE, LATTIPUR
(AFFILIATED TO TRIBHUVAN UNIVERSITY)**



LAB REPORT

LAB NO.: 2

SUBJECT: C PROGRAMMING

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SUBMITTED TO:

DEPARTMENT OF
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Title :- Introduction to data types , operations & expression

Objective.

* To be familiar with data types , operations & expression in C.

Theory.

→ Data types

C-programming language is a robust language with rich set of built in functions & operators that can be used to write any complex program. It is also rich in its data types. The variety of data types available allow the programmer to select the type appropriate to the needs of the application as well as the machine. Each data type requires an amount of memory & performs specific operations.

Some common data types in C are:-

• int:

It is used to store an integer value & requires about 2 bytes of memory. For example:- An integer value stored in a variable 'a' is declared as "int a".

• char:

It is used to store a single character & requires about 1 byte of memory space. For example:- A character stored in variable 'c' is declared as "char c".

* Float

It is used to store decimal number with single precision & uses about 4 bytes of memory space. Syntax: "Float (variable);".

* Double.

It is used to store decimal number with double precision & uses about 8 bytes of memory space. Syntax: "double (variable);".

* long int.

It is used to store larger integer number than int & its size is double the size of int i.e. 4 bytes. Syntax: "long int (variable);".

* long double.

It is used to store the decimal numbers with even more precision than double & its size is about 10 bytes. Syntax: "long double (variable);".

→ Operators.

An operator is a symbol that tells the computer to perform certain mathematical or logical manipulation. Operators are used in programs to manipulate data & variable. They usually form part of the mathematical or logical expressions. Operators can be classified into a number of categories.

They include.

1) Arithmetic operators

2) Relational operators.

3) Logical operators.

4) Assignment operators.

5) Increment & decrement operators

6) Conditional operators.

7) Bitwise operators.

8) Special operators.