

Handwritten notes

Unit 1

Programming language categories

- Machine
- Assembly
- High level language

Steps to follow to solve a problem

- Write Pseudo code (To have line ideas)
- Write program

Flowchart and Components of

Valid and invalid variables

Unit - 2

Operators in C

- Increment/decrement
- & operator
- sizeof()
- *
- Logical NOT(!) operator

Bitwise operators

- Bitwise AND
- Bitwise OR
- Bitwise XOR
- Complement
- Shift

Operator precedence

- Associativity, $\begin{bmatrix} R \rightarrow L \\ L \rightarrow R \end{bmatrix}$

Control statements (Conditional)

- If
- If else
- Nested if else
- else if

Switch

+ goto

Unit - 3

Pre processors

- performs macro substitution
- directives begin with # and only white space characters
- improves readability of program

* User defined functions

- Organizes the code
- Can have built in functions

Unit-4

Array - Collection of items

Types

- Integer
- Float double
- Character
- Structure

Syntax: $\langle \text{data type} \rangle \text{array_Name} [\text{array_size}]$

Command line arguments :- Arguments passed to the program from the command line when executed.

- argc ; integer value
- argv ; Pointer array

Pointer :- Stores address of another variable

- Address operator
- Size of pointer variable
- Pointer operator

Pointer Arithmetic

- Auto increment
- Auto decrement
- Addition
- Subtraction
- Comparison

Unit Units

Structure :

- Collection of variables of different data types.

Files in C

- defined in `stdio.h` to store the attributes

Operations

- `fopen` - open file
- `fclose` - close file
- `fread` - read from file
- `fwrite` - write to file
- `fseek` - move file pointer
- `ftell` - location of file pointer

Error handling

- Supported by return values
- `ferror()` and `feof()`