'C' Language -Syllabus

- ❖ **1 - Introduction to C language**
- ❖ History of C**,** Features of C**,** Importance of C**,** About Procedural Language, Role of Compiler, Role of Interpreter, Compiling & Linking, Algorithm and flowchart.
- ❖ **2. Basics**

Characterset,tokens,keywords,identifier,datatype,constant,punctuator,variable,operator,input-output methods.

- ❖ **3. Operator**

Arithmetic, assignment, shorthand, relational, logical, unary, increment and decrement, ternary etc.

- ❖ **4. Input-Output function**

Formatted input-output function (scanf (), printf ())

Unformatted input-output function –getchar(),getche(),getch(),pucthar() ,gets()puts() etc.

- ❖ **5. Data Types**

Basic data type, size and derived data type, sizeOf () etc.

- ❖ **6. Control Statement (conditional and branching)**

Conditional/selection –if, if else, else if ladder, nested if, switch, nested switch, goto,break,continue etc.

- ❖ **7-Control Statement (Looping)**

While, do while, for, nested loop, nested for etc.

- ❖ **8-Array**

Definition, declaration, initialization, types of array, one dimensional, two dimensional, searching, sorting, insertion, deletion etc.

- ❖ **9-String**

Definition,declaration,initialization,string and array, string library function as-strlen(),strcmp(),strcpy(),strcat() etc.

- ❖ **10-Structurre and Union**

Definition,declaration,initialization,multiple variable concept,array of structure,array within structure,structure and string function,nested structure,union and structure etc.

- ❖ **11-Function**

Definition,declaration,initialization,types of function,prototype,definition,function call,library function,user define function,argument/parameter,recursion,return concept,array and function,structure and function,pointer and function etc.

❖ **12-Storage Classes**

Definition,declaration,local variable,global variable,auto,static,register,extern etc.

❖ **13-Pointer**

❖ Definition,declaration,initialization,pointer to pointer,pointer arithmetic,pointer and array, array of pointer,pointer and structure,pointer and function,call by value,call by reference,pointer and string etc.

❖ **14-The preprocessor**

Macros,#define,macro without argument,macros with argument,conditional macros etc.

❖ **15-Dynamic memory allocation**

Definition,types,dynamic memory allocation function –malloc(),calloc(),realloc(),free() etc.

❖ **16-File Handling**

Interoduction,file operation opening,reading/writing,closing,file mode,file handlng function ,fgetc(),fputc(),fgets(),fputs(),getw(),putw(),format function fprintf(),fscanf(),fread(),fwrite(),random access file etc.

➢ **Project work.**
❖ **Note :- More than 100 programs will be practiced during the course.**

Popular Compiler for 'C' language

- Turbo
- Code block
- Dev.
- Borland
- MinGW