Programming in C (16SCCIT2)

IMPORTANCE OF C (Page 3)

* C is highly portable.
* This means that C program written for one computer can be run on another with little or no modification.
* We can execute C program in different operating system.
* Program written in C are efficient and fast.

SAMPLE PROGRAM1: PRINTING A MESSAGE (Page 3)

Main( )

{

/\*.........Printing begins........\*/

Printf(“Welcome”);

/\*..........Printing ends..........\*/

}

Output

Welcome

The main Function (Page 6)

The main is a part of every C program. C permits different forms of main statement. Following forms are allowed.

* main( )
* int main( )
* void main( )
* main(void)
* void main (void)
* int main (void)

PROGRAM 2: ADDING TWO NUMBERS: (Page 6)

/\* Program Addition

main( )

{

int number;

float amount;

number =100;

amount = 30.75 + 75.35;

printf(“%d\n”,number);

printf(“%5.2f”,amount);

}

PROGRAM 3: USE OF SUBROUTINES

/\*...........Program using function...\*/

int mul( int a, int b); /\* ........DECLARATION....\*/

/\*.......Main program begins.....\*/

main ( )

{

int a,b,c;

a=5;

b=10;

c=mul(a,b);

printf(“Multiplication of %d and %d is %d”, a, b, c);

}

/\*.....................Main Program Ends , mul( ) function starts .....\*/

int mul (int x, int y);

int p;

{

p=x\*y;

return(p);

}

/\*.........mul ( ) Function ends......\*/

--------------------------------------------------------------------------------------------

BASIC STRUCTURE OF C PROGRAMS (Page 12)

1. C program can be viewed as a group of building blocks called functions.

|  |
| --- |
| Documentation Section |
| Link Section |
| Definition Section |
| Global Declaration Section |
| Main ( ) function section  {  Declaration part  Executable part  } |
| Subprograms section  Function 1  Function 2 (User-defined functions)  .....  Function n |

EXECUTING A ‘C’ PROGORAM (Page 14)

Executing a program written in C involved a series of steps.

1. Creating the program.
2. Compiling the program.
3. Linking the program with functions that are needed from the C library. and
4. Executing the program.

CHAPTER 2:

CONSTANTS, VARIABLES AND DATA TYPES (Page 22)

* A programming language is designed to help process certain kinds of data consisting of numbers, characters and strings and to provide useful output known as information.
* The task of processing of data is accomplished by executing a sequence of precise instructions called a program.
* The instructions are formed using certain symbols and words according to some rigid rules known as syntax rules.

CHARACTER SET (Page 22)

The characters in C are grouped into the following categories:

1. Letters
2. Digits
3. Special characters
4. White spaces

C TOKENS (Page 24)

C TOKENS

Special symbols

identifiers

operators

strings

constants

keywords