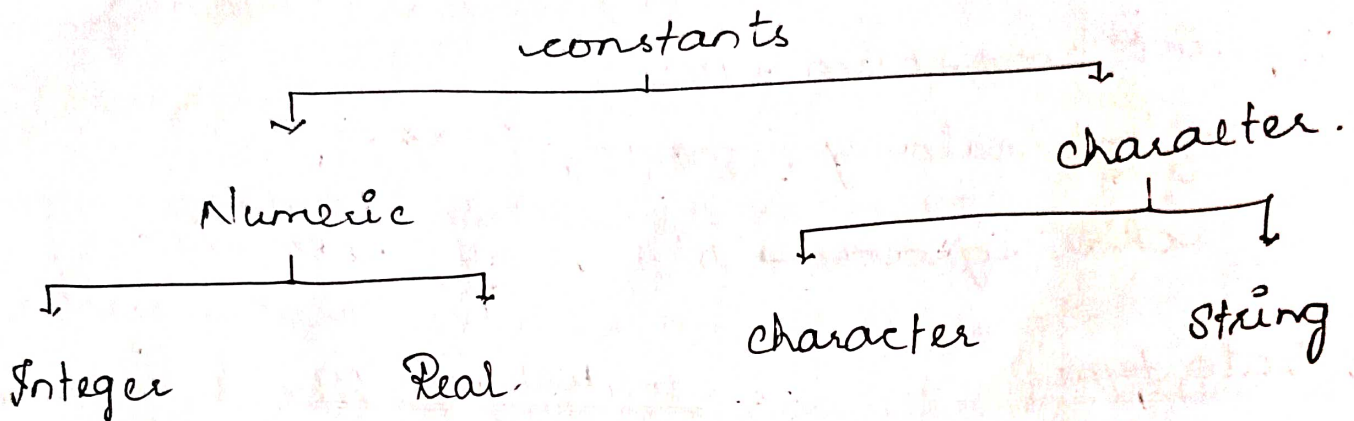


## CONSTANTS:-

The items whose values cannot be changed during the execution of the program, are called constants. 'c' constants can be classified as



## NUMERIC CONSTANTS:-

### 1) INTEGER CONSTANTS:-

It is formed with the sequence of digits. There are three types of integer constants which are different number systems.

\* Decimal number - 0 to 9

\* Octal number - 0 to 7

\* Hexadecimal number - 0 to 9, A, B, C, D, E, F

eg:- marks = 90;

per = 75;

discount = 15;

eg:- 10, = 321, 052,

0x F, 0x 8F...



## RULES:-

- \* It must have at least one digit
  - \* Decimal point is not allowed
  - \* It can be either positive or negative
  - \* If it is negative, the sign must be preceded
- for positive the sign is not necessary.
- \* No commas or blank spaces are allowed
  - \* The allowable range for integer constants is  $-32,768$  to  $+32,767$ .

## REAL CONSTANTS:-

A real constant is made up of a sequence of numeric digits with presence of a decimal point. Real constants serve as a good purpose to represent quantities that vary continuously such as distance, heights, temperature etc.,

eg:- distance = 126.0;

height = 5.6;

speed = 3211;

## RULES:-

- \* A real constant must have one digit.



\* A real constant must have decimal point

\* It can be either positive or negative.

\* If it is negative, the sign is must or if it is positive, sign is not necessary.

\* No comma or blank spaces are allowed.

### CHARACTER CONSTANTS:-

The character constant contains a single character enclosed with in a pair of single inverted commas both pointing to the left.

eg:- 'S', 'M', '3', '-'

The character constant '5' is different from the number 5.

### STRING CONSTANTS:-

A string constant is a sequence of characters enclosed in double quotes, the characters may be letters, numbers, special characters and blank space etc...

At the end of string '\0' is automatically placed.

eg:- "HI"  
"GOD"  
"39.77"  
"50"



## Declaring a variable as constant:-

When the value of some of the variables may remain constantly during the execution of the program, in such a situation, this can be done by using the keyword `const`.

### SYNTAX:-

`const datatype variable = constant`

where

`const` → is the keyword to declare constant

`variable` → is the name of the variable

`datatype` → is the type of the data

`constant` → is the constant

eg:- `const int dob = 3977;`

The compiler can not be modified by the value of the variable which is assigned by using the keyword `const`.

### DELIMITERS:-

These are the symbols, which has some syntactic meaning and has got significance. These

will not specify any operation. 'C' language delimiters list is given below.

SYMBOL	NAME	MEANING
#	Slash	Pre-Processor directive
,	Comma	Variable delimiters to separate list of variables
:	Colon	label delimiters
;	Semicolon	statement delimiters
()	Parenthesis	used in expressions or in functions.
{ }	Curly braces	used for blocking 'C' structure
[ ]	Square braces	used along with arrays.