

- * Identifier or variable are basically name of the memory location (int @, (b) → Identifier)
- * Constant are the identifiers whose value does not change. It is used to declare the value of π or charge of an electron.
- * Numeric constant are from 0 to 90
- * Combination of Alphabet is known as String. (e.g. Irshad.)
- * Datatype are use to declare the variable datatypes are (int, float, char).
- * Char - All single character which are used in the programme belongs to char datatype.
- * modifiers - modifiers are also a keyword which are used to change the current property of datatype. (Long, short, signed, unsigned)
- * printf and scanf → #include <stdio.h>
- * getchar and putchar are simple input-output functions which are used to input a character and output.
- * Error →
(i) compilation time error - error generated at the time of compilation.

(ii) Run time Error:- Error generated at runtime.
It is raised becoz of writing wrong logics.

* gets and puts. - gets used to store the data and puts is used to print the data.

* Conditional operator:- It help in two way decision making programme.

Syntax:-

(expression 1) ? (expression 2) : (expression 3);

* Size of operator is used to find the size of keyword or datatype.

* Conditional Statement:- It helps to jump from one part of programme to another part depend upon condition.

if - Simple decision Control Statement.

else if - " " " " " " " " It is used for checking multiple condition in a prog.

* Switch Statement is a multiway Branch Statement, which provide an easy way to execute different parts of programme.

* goto - go to statement used to jump from one part of programme to another.
two types of jumping (forward and backward)

	Datatype	Keyword	Size	Range
(i)	character	char	1	-128 to 127
(ii)	Integer	int	2	-32768 to 32767
(iii)	Floating point	float	4	3.4E-38 to 3.4E+38
(iv)	Double	double	8	1.7E-308 to 1.7E+308
(v)	void	void	0	no values

* Operators:-

- (i) Arithmetic operators:- $+$, $-$, $/$, $*$, $\%$
- (ii) Relational operators:- These are comparison operators
($<$, $>$, $<=$, $>=$)
- (iii) Equality operators:- ($==$, $!=$)
- (iv) Logical operators:- ($&&$, $||$, $!$)

→ Logical not → Logical not produces 0 if the value is non-zero and produces 1 if the value is zero.

e.g int a=10, b;
b = !a

Now, value of b = 0

- (v) Unary operators:- These are three types of unary operators: unary minus ($-$), increment and decrement.

unary minus - is used to change the sign of operands. e.g int a=10, b=2

a = -b
Now a = -2

Increment and decrement: Increment and decrement increase or decrease the value of its operand by 1.

(vi) Conditional operator - or ternary \rightarrow ($?:$)

(vii) Bitwise operator: Bitwise operators are used to manipulating the data at bit level.

(viii) Assignment operator: This operator is used to assign the values to variable. Most commonly used assignment operator is ($=$)

$a = 10$, $b = 1$

$a = b;$

Now, $a = 1$ (1 is assigned to b).

(ix) Comma operator \rightarrow Comma operator is used as separator. Comma op. returns the rightmost value.

* Loop \rightarrow Loop provides the mechanism to repeat a task.

\rightarrow for loop \rightarrow for loop is used to repeat a particular task until the condition is true.

\rightarrow while loop \rightarrow It also repeatedly executes the target statement as long as the condition is true (Entry Restricted loop)

\rightarrow do while \rightarrow do while loop at least executes 1 time either if the condition is false or true. (Exit Restricted loop)

* function \rightarrow Function is a block of code that performs a particular task. It divides a complex programme into simple ones.

% \rightarrow specifier /