

→ literals

constant → doesn't change

Variable → may change

(or) identifier

Keyword → special meaning,
reserved words.

Constants:

Primary

sec.

Int

Array

Real

String

char

Pointers

Structures

Unions.

Rules: (Int) 4 bytes

Int:

1) at least 1 digit

2) no decimal

3) zero, +ve, -ve
(sign).

0 → octal

0x/0X → Hexa
decimal

range - 2147483648 to 2147483647

Real

(4294967296).

1) same

2) decimal

3) same.

4) exponent - mantissa

0.000342

3.42e-4 / E (3.42 × 10⁻⁴)

+ve/-ve

separated

at least digit

+ve/-ve

- 3.4e38 to 3.4e38

char

Single alphabet, digit, symbol

'A', '5', '='

Vars:-

Results of Calc, are stored here (in mem).
to make retrieval & usage clear/easy,
they are named.

Values keep on changing, so called
Variables.

Rules:

comb of alpha, num, underscores.
1st ↓ not 1st

decl:

int si;

float basic;

char code;

Keywords :- (32)

auto	double	int	struct
break	else	long	switch
case	enum	register	typedef
char	extern	return	union
continue	float	short	unsigned
default	for	signed	void
do	goto	sizeof	volatile
const	if	static	while

Structure of C

header files
↓
(fn def).

DOCUMENTATION BLOCK (comment)
PREPROCESSOR DIRECTIVE (expln).
BLOCK
DEFINITION BLOCK
GLOBAL DECLARATION BLOCK
main
→ 1st line of exe
{
var. decl
exec. insts
}
function block again.

Rules

end with ;
lower cases

comments:

/* */

//

main()

→ function

container for a set of statements.

```
int main()
```

```
{
```

```
return 0; → success.
```

```
}
```

Printf → can print (3, 3+2, c,
a+b*c-d);

scanf() → blank, tab, new line
 ↓ ↓ ↓
 spacebar tab enter key.

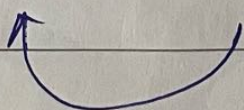
Q1) '3.15' ✗
 35,550 ✗
 3.2502 ✓
 'e Learning' ✗
 4652 ✗
 B'day ✗
 int ✗
 \$hello ✗
 main() ✗
 totalArea ✓
 Variable name ✗

Instructions:

- 1) Type decln inst → to declare types of Var.
- 2) Arith "
- 3) control "

1) int i=10; → int
 int bas; → decl.
 float b = a + 3.1, a = 1.5; ✗
 int a, b, c, d;
 a = b = c = d = 10; ✓
 int a = b = c = d = 10 ✗

2) Var (=) Var | consts
 only one Var ↓
 Operands.



Value stored on left side