C-PP (C-plus plus)

[Introduction] :→

C++ → object oriented programming language.

uses:-
1. OS
2. Games
3. Browsers
4. Libraries
5. Graphics
6. Cloud / Distributed System.

Header File →

#include <iostream>
↓
I/P or O/P stream

cin → I/P
cout → O/P

MACRO:-

#define LIMIT 5

Comments:-

// Hello I am Amit.
/* ....—
__ */

JAN
2023

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	*	*	*	*

Variable & Data-type :→

datatype variable_name;

int , float , long , bool , char
↓ ↓ ↓ ↓ ↓
4 byte   4 byte.   8 byte   1 byte   1 byte.

String   myText = "Amit" ;

Type Casting   →   (type) expression .

Input OR Output :→

Cin >>
cout <<

Operators :—

Arithmetic op.	Unary op.	Relational op.
+, -, *, /, %	-, +, !, ~ ++, --,	==, !=, >= <, >, <=
Logical op.	Bitwise op	Assignment op.
&&, ||, !	&, |, !, ~ >>, <<	=, /=, += +=, *=, -=.

Conditional operation:-

Ex-1   ?   Ex-2 :   Ex-3

Conditional St. OR Loops :→

① If Statement   ⑪ If-else Statement.
② nested if   ④ switch statement.

if (Condition) {

                              switch (oper) {

  } else {   case ' ' :

  }   . . . .

                                case ' ' :

                                  - - - -

                                default :

                                  - - · ·

                              }

Jump :→

                goto XYZ ;

            XYZ :
                Statement ;

07 Wednesday

<u>Loops:-</u>

initialization

Condition

update.

```
for ( ; ; ) {
```

```
}
```

```
while (condition) {

    ---

}
```

```
do {

    ---

} while (condition);
```

functions :-

```
return-type fn-name (parameter) {

    ---

}
```

Painters :→

int *p;

&p
↳ address op.

Null painter   Double painter
*p = NULL   int ** P.

Dynamic memory allocation!→

int * arr = new int [size-of-array];

2-D array →

int ** arr = new int * [n];

9

Strings &→

String str;

10

strlen (str); → Length of String

11

String str = "Hello World";

12

$$str[6] = W$$

1

or we can assign,

2

str[6] = 'J';

3

Now, str = "Hello Jorld";

4

str.front() = 'e'; (assigned)
str.end() = '!'; (")

5

6

String str1 = "Coding";
String str2 = "Ninja";

7

str1 = str1 + str2;

Same:
① str cat() method

② str.append(str1) m

DEC	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
2022	*	*	*	*	*	1	2	3		4	5	6	7	8	9	10		11	12	13	14	15	16	17		18	19	20	21	22	23	24		25	26	27	28	29	30	31

Strcmp ()
Compare ()   ] String Comparison.
Relational op   ]

Str1. Compare (str 2);

boot hellow = (Compare String Using
                        Relational op.)

× reverse (Str. begin(), Str. end());
× sort (str. begin (), Str. end());