

CS & IT ENGINEERING

C-Programming

2024

Control Flow Statements

DPP Discussion Notes



By- Abhishek Sir



#Q. `#include <stdio.h>`

`int main(void)`

`{`

`int i = 2, j = 3, k = 4;`

`if (i < j ? 1 : 0)`

`printf("GATE");` ✓

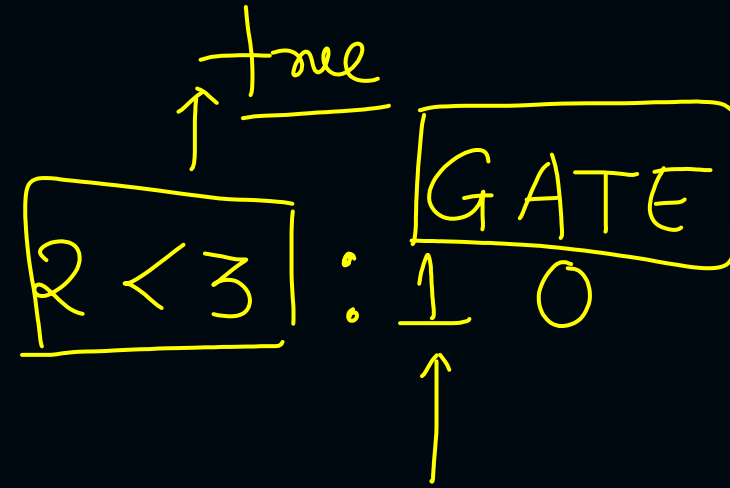
`else`

`printf("Wallah2023");`

`return 0;`

`}`

The output of the program is ____.



`if (1)`

[MCQ]



#Q. #include <stdio.h>

void main()

{

int a, b, c, d;

a = 2; b = -1; c = 3; d = -4;

if(a = b - c - d)

printf(“%d%d%d”, a++, b--, c++);

else

printf(“%d%d%d”, c--, ++ a, ++b);

}

The output is ____.

$$a = -1 - 3 - (-4)$$

$$-4 + 4 = 0$$

a [0] update

↓ ↓
3 1 0

A

1 -2 4

B

3 1 0

C

2 1 -3

D

3 3 0

[MCQ]



#Q. #include <stdio.h>

int main(void)

{

int a = 3 > 2 ? (0 ? 0 : 1) : 5;

if(a == a - 1)

print f("GATE 2023");

else

print f("GATE WALLAH");

return 0;

}

The output of the program is ____.

Confusion

Right Associative?

0 ? 0 : 1

Confuse

false

3 > 2 ? (1) 5

a = 1

A

GATE 2023

B

GATE WALLAH

C

Compiler error

D

Garbage value

#Q. #include <stdio .h>

void main()

{

int a;

a = printf("GATE Wallah 2023");

if(a%4 == 0)

a = a + 5;

else

a = a - 5;

printf("%d", a++);

}

Space will be counted

$$4 + \underline{1} + 6 + \underline{1} + \underline{4}$$

$$a = \underline{16}$$

$$16$$

$$\underline{16 \% 4 == 0}$$

$$16 + 5 = \underline{21}$$

$$21$$

post increment

$$22$$

The value of a at the end of the program is 22.

#Q.

#include <stdio.h>

void main() {

int i, j, k;

j = 4; k = 0;

i = j < k ? k : j --;

if(j < i)

j = j + k - 1;

if(j == i)

j = j - i;

else

j = j + --k;

printf("%d", j + k - i);

}

The output is -4.
$$i = 4 < 0 ? k : j --$$

$$\boxed{i = 4} \quad j \quad \boxed{3}$$

$$3 < 4$$

$$j = 3 + 0 - 1$$

$$j = \boxed{2}$$

$$k \quad \boxed{-1}$$

$$j = j + --k = 2 + (-1)$$

$$2 - 1 = \boxed{1} \checkmark$$

[NAT]



#Q. Consider the following program:

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
    int a=19, b=20;
```

```
    if(a++<b--) printf("%d",a+++--b);
```

```
else    printf("%d", ++a+--b);
```

```
return 0;
```

```
}
```

The output is 38.

$$(a++) + \underline{\underline{--b}}$$

$$a \times \boxed{\cancel{19}20} \quad b \div \boxed{\frac{\cancel{20}19}{18}}$$

$$\underline{\text{if}(19 < 20)}$$

$$\left(\underline{a++} \right) + \left(\underline{\underline{--b}} \right)$$

$$20 + 18 = 38$$

$$a \underbrace{(\underline{++})}_{\text{unary}} + \underline{\underline{--b}}$$

[MCQ]



#Q.

```
#include<stdio.h>
```

```
void main()
```

```
{
```

```
    int a=0;
```

```
    printf("%d", a);
```

```
    if(a=2){
```

```
        printf("Hi");
```

```
        printf("%d",a);
```

```
    }else{
```

```
        printf("Bye");
```

```
    }
```

```
    printf("%d", a);
```

```
}
```

The output string is:

a [0] [2]

0Hi22

A

0Hi22

B

0Hi20

C

0Bye0

D

0Hi00

[MCQ]



#Q. #include<stdio.h>

void main()

{

int a=0, b=0;

a=(a=4)||(b=1);

if(a&&b)

printf("CProgramming");

else

printf("GATE");

printf("%d", b);

}

The output is-

$a = (a=4) || (b=1)$

a

No! execute nahi karega

Short circuit code

a = 1

A

CProgramming0

B

CProgramming1

C

GATE0

D

GATE1

GATE0



THANK - YOU