



# CS & IT

# ENGINEERING

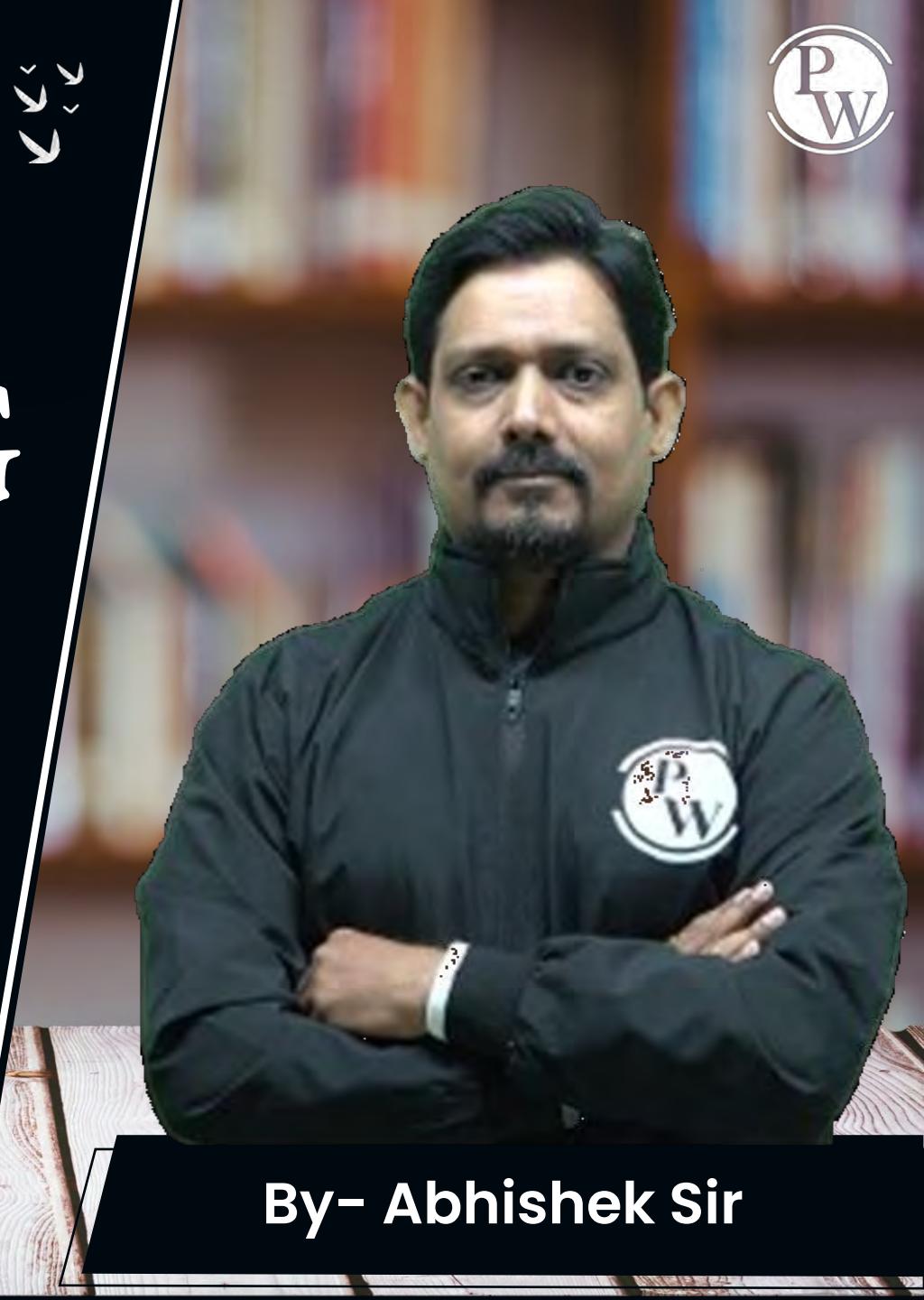


2024

## C-Programming

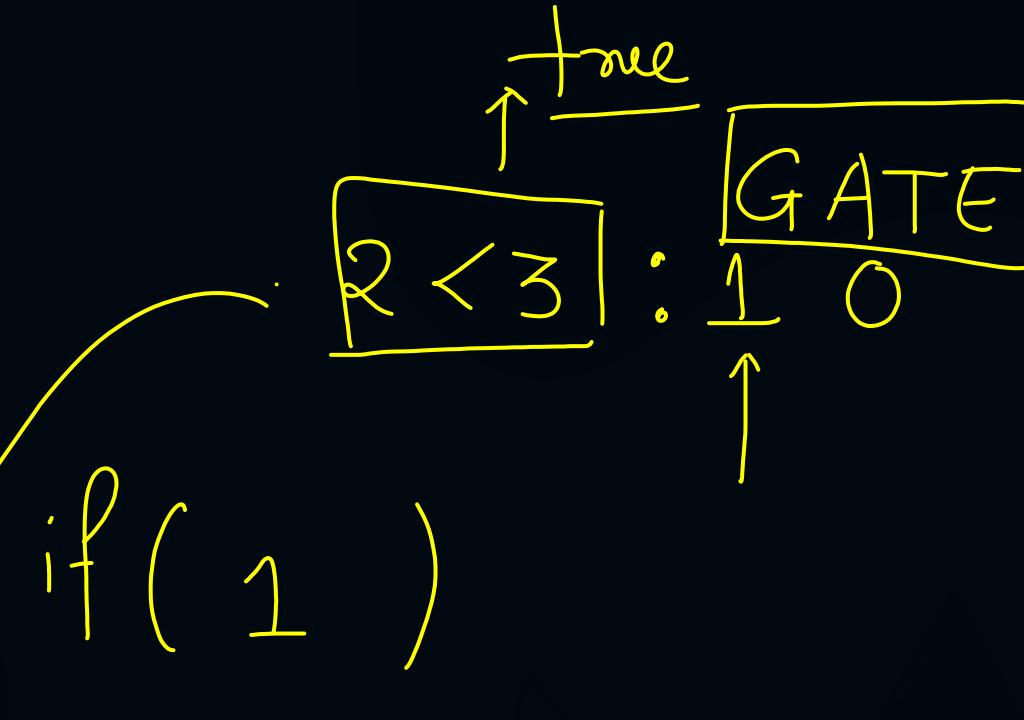
Control Flow Statements  
Discussion Notes

DPP - 01



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 \_\_\_\_.

# [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 \_\_\_\_.

$$Q = \frac{-1 - 3 - (-4)}{-4 + 4} = 0$$

$$\underline{-4} + 4 = \underline{0}$$

a [0] update

↓ ↓ —  
3 1 0

A

1 -2 4

B

3 1 0

C

2 1 -3

D

3 3 0

```
#Q. #include <stdio.h>
int main(void)
{
    int a = 3 > 2 ? (0 ? 0 : 1) : 5;
    if(a == a - 1)
        printf("GATE 2023");
    else
        printf("GATE WALLAH");
    return 0;
}
```

Confuse

Confusion

Right Associate

0?01

false

3>2?① 5

a=1



GATE 2023



GATE WALLAH



Compiler error



Garbage value

The output of the program is \_\_\_\_.

```
#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

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

$$a = 16$$

a = printf("GATE Wallah 2023"); 16

if( $a \% 4 == 0$ ) 16%4 == 0

a = a + 5;

$$\curvearrowright 16 + 5 = 21$$

$$16 + 5 = 21$$

a = a - 5;

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

21 → post increment

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 \_\_.

$$i = \underline{4 < 0 ? k : j--}$$



$$3 < 9$$

$$j = 3 + 0 - 1 \quad j = \boxed{2}$$

$$k \boxed{-1}$$

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

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

[NAT]

$$\textcircled{a++} + \underline{- - b}$$

$$a \times \boxed{1920} \quad b \not\mid \boxed{\begin{array}{r} 2019 \\ \hline 18 \end{array}}$$



#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.

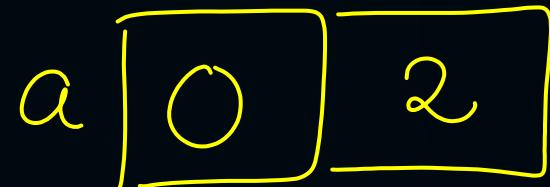
$$\begin{aligned}
 & \text{if } (19 < 20) \\
 & \frac{}{(a++) + (- - b)} \\
 & \text{using } 20 + 18 = 38
 \end{aligned}$$

$$\begin{aligned}
 & a \textcircled{++} + \underline{- - b} \\
 & 20 + 18 = 38
 \end{aligned}$$

# [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);
}
```



0 H i 2 2

-  A 0Hi22
-  B 0Hi20
-  C 0Bye0
-  D 0Hi00

The output string is:

#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);  
}

$$a = \frac{1}{(a=4) || (b=1)}$$

a      No

No execute করা হবে

Short Circuit code

a = 1

q  
কৰণ



CProgramming0



CProgramming1



GATE0



GATE1

The output is-



THANK - YOU