Batch: Hinglish

C Programming Control Flow Statement



DPP-0

[NAT]

[MCQ]

```
2. #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 -2 4
    (b) 3 1 0
```

[MCQ]

(c) $2 \ 1 \ -3$

(d) 3 3 0

```
3. #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;
    }
    The output of the program is _____.
    (a) GATE 2023
```

- (b) GATE WALLAH
- (c) Compiler error
- (d) Garbage value

[NAT]

```
4. #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++);
    }
    The value of a at the end of the program is ____.
```

[NAT]

```
#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 ____.</li>
```

[NAT]

6. 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 ______.</pre>
```

[MCQ]

```
7. #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) 0Hi22
                        (b) 0Hi20
    (c) 0Bye0
                        (d) 0Hi00
[MCQ]
   #include<stdio.h>
    void main()
    {
      int a=0, b=0;
      a=(a=4)||(b=1);
      if(a&&b) printf("CProgramming");
      else printf("PankajSharma");
      printf("%d",b);
    The output is-
    (a) CProgramming0
    (b) CProgramming1
    (c) PankajSharma0
    (d) PankajSharma1
```

Answer Key

- (GATE) 1.
- 2. **(b)**
- 3. **(b)**
- 4. (22)
- 5. (-4)

- 6. (38) 7. (a) 8. (c)



Hints and solutions

1. (**GATE**)

i < j ? 1 : 0

In the above expression i value is less than j value, hence it will return 1.

So, it will print GATE.

2. (c)

$$a = -1 - 3 + 4$$

$$a = 0$$

Assignment operator assigns and returns the value

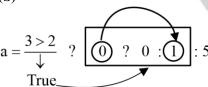
$$b + + b: - 1/0$$

$$a + a : \emptyset 1$$
,

Post decrement (It will print 3, then update to 2)

Output: 3 1 0

(b) 3.



a = 1

Assignment operator assigns the value and returns it

if
$$(a=a-1)$$

Condition: false

Output: GATE WALLAH

(GATE Wallah 202321)

GATE Wallah 2023

$$\downarrow$$
 $a - 16$

$$a = 16$$

printf returns the number of characters successfully printed

 $16 \% 4 = 0 \rightarrow True$

$$\downarrow$$

$$a = a + 5$$

Hence the final value of a is 22.

5. (-4)

$$3 < 4$$

 $j = 3 + 0 - 1 = 2$

$$2! = 4$$

$$j = j - 1$$

$$= 2 - 1$$

$$j = 1$$

printed value = j + k - i

$$=1-1-4$$

(38)

If $(19<20) \rightarrow$ Condition is true. After the condition is evaluated, a is incremented to 20 and b is decremented

Now, printf("%d",a+++--b); is evaluated. b is decremented to 18. So, (20+18) i.e. 38 is printed. After that, a is incremented to 21.

Hence, output is 38.

7. (a)

void main()

int a=0;

printf("%d", a); // 0 is printed

if(a=2){//Assignment operator assigns and returns the assigned value; So 2 is assigned to a and 2 is returned. Any non-zero value is considered true.

printf("Hi");//"Hi" is printed

```
printf("%d",a);//Since a contains 2, 2 is printed.
}else{
    printf("Bye");
}
printf("%d", a); //Since a contains 2, 2 is printed
}
Output: 0Hi22
```

8. (c)

a=0. b=0;

a=(a=4)||(b=1)||/Assignment operator assigns and returns the assigned value. Here, short-circuiting will be applied. Since the logical operator is OR, if the first part is true, second part is not evaluated at all. Hence, b=0, a=1.

if(a && b)//The condition evaluates to 1 && 0 i.e. 0. Hence, else part is evaluated.

Output: PankajSharma0





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For more questions, kindly visit the library section: Link for web: https://smart.link/sdfez8ejd80if

