



CS & IT ENGINEERING

C-Programming

Data type and Operators
Discussion Notes

DPP No.- 2



By- Abhishek sir

[MCQ]

```
#Q. include <stdio.h>
int main(void)
{
    int a;
    a = 2 * 6/5 + 3.0/2 + 1;
    printf("%d", a);
    return 0;
}
```

The value of a is 4

$$a = 12/5 + 3.0/2 + 1$$

$$= (2 + 1.5 + 1 = \underline{4.5})$$

$$= 3.5 + 1 = \underline{4.5}$$

A

4.9

B

4.0

C

4.5

D

4



[MCQ]



#Q. #include <stdio.h>

int main(void)

{

int a;

a = 16.0 / 4 * 5 % 3; =

printf("%d", a);

return 0;

}

The value of a printed is ____

A

Compiler error ✓

C

2

B

8.0

D

8

Division multiplication modules
Left to Right

4.0 * 5 % 3

= 20.0 % 3

floating point
modulus
operator Not
allowed

#Q. Consider the following program.

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

```
void main()
```

```
{
```

```
    int a;
```

```
    a = 32 > 24 > 13 > 10 > 8 > -1 > 0;
```

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

```
}
```

The output is 1.

Left to right

$$\left(\left(\left(\left(\left(\left(32 > 24 \right) > 13 \right) > 10 \right) > 8 \right) > -1 \right) > 0 \right)$$

precedence

$1 > 13$

Associativity Rule

$0 > 10 > 8 > -1 > 0$

$0 > 8 > -1 > 0$

$0 > -1 > 0$

$1 > 0 = 1$

```
#Q. #include<stdio.h>
void main()
{
    int a;
    a = 25 > 15 > 0! = 12 < 45 > 42! = 65;
    printf("%d", a);
}
```

The output is ____.

==, != lower precedence

$$25 > 15 > 0! = 12 < 45 > 42! = 65$$

$$\textcircled{1} > 0! = 12 < 45 > 42! = 65$$

$$1! = 1 > 42! = 65$$

$$(1! = 0! = 65)$$

$$\textcircled{1! = 65}$$

$$\textcircled{1}$$

[MCQ]

#Q. Consider the following program:

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

```
void main() {
    int a = 0, b = 1;
    a = (a = 5) && (b = 0);
    printf("%d", a);
    printf("%d", b);
}
```

The output is:

A

50

C

10

☒ B

00

D

Compiler error

a 50 b 0

$a = (a = 5) \&\& (b = 0)$
 $a = 0$

#Q. Consider the following statements:

P: The precedence of the modulus operator is higher than multiplication or division operator.

Same - Incorrect

Q: The result of the modulus operator contains the sign of the second operand.

Which of the following statements is/are INCORRECT?

A

Only P

B

Only Q

C

Both P and Q ✓

D

Neither P nor Q

-5%2 → Negative

[MCQ]

#Q. Consider the following program:

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

```
void main()
```

```
{
```

```
    int a = 2022;
```

```
    printf("%d%d%d", a!=2024, a=2023, a==2021);
```

```
}
```

The output is-

A

020220

B

020231

C

002021

D

120230



1 2023 0

#Q. Consider the following program:

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

```
void main()
```

```
{
```

```
    int x=-2023;
```

```
    printf("%d", ~(x=x+5));
```

```
}
```

The output is 2017.

$$X = -2023$$

6th operator

$$X = -2023 + 5 = -2018$$

$$\sim(-2018) \sim 2018 + 1$$

$$\begin{aligned}\sim &= -(-2018 + 1) \\ &= -(-2017) = 2017\end{aligned}$$



THANK - YOU

