CS & IT ENGINEERING

C Programming
Data Types and Operators
DPP 02 Discussion

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01 Question

02 Discussion

Q.1

```
include <stdio.h>
int main(void){
    int a;
    a = 2 * 6/5 + 3.0/2 + 1;
    printf("%d", a); 4
    return 0;
}
```

The value of a is ___

(D)

A. 4.9

B. 4.0

C. 4.5

D. 4 ✓

↓ x, / } L to R
+
=

a = 2 x 6/5 + 3.0/2 + 1

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

2 4

a = 2 + float int 3.0/2 + 1

a = int 2 + float 1.5 + 1

(4) a = float int 3.5 + 1

a = 4.5

Q.2

```
#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

B. 8.0

C. 2

D. 8

/, X, %} L to R

a = 16.0 / 4 X 5 % 3
(float / int)

a = 4.0 X 5 % 3
(float int)

a = 20.0 % 3
(float, int)

A) Error

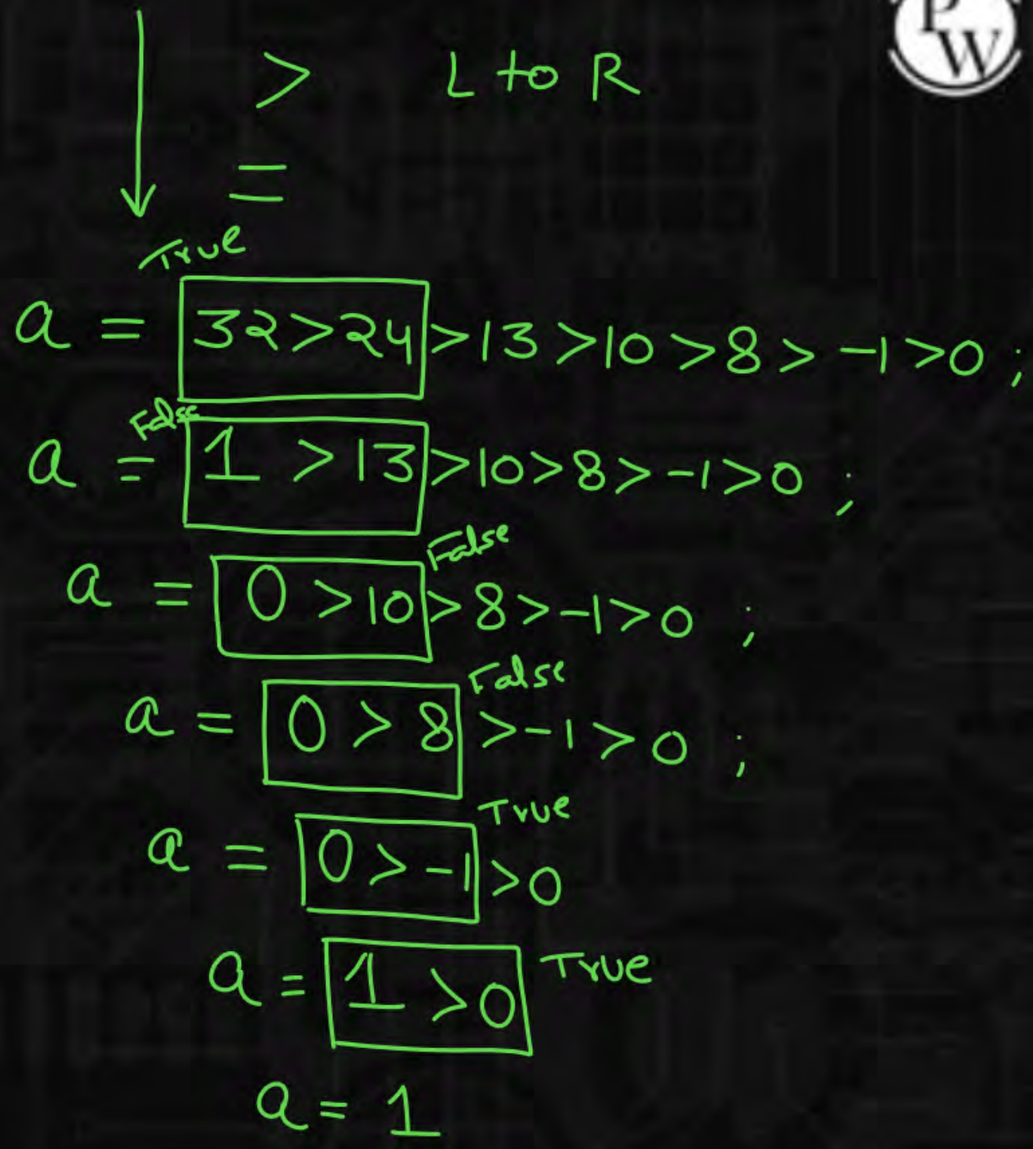
% : Both operands must be int type.

Q.3

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 .



Q.4

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

The output is 1.

1. <, >, <=, >= } L to R
2. ==, != }
3. = } R to L

a = [25>15] >0!=12<45>42!=65 (25>15 : True)

a = [1>0]!=12<45>42!=65

a = 1!=[12<45]>42!=65 (12<45 : True)

a = 1!=[1>42]!=65 (1>42 : False)

a = [1!=0]!=65

a = [1!=65] (1!=65 : True)

a = 1

Q.5

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:

(B)

a = ((a = 5) && (b = 0))
①

a = (5 && (b = 0))
②

a = (5 && 0)

a = 0

a	b
0 5	1 0

A. 50

B. 00

C. 10

D. Compiler error

Q.6

Consider the following statements:

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

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

Q.7

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

~~2022~~ 2023

1 2023 0 ①

2023 != 2024

0

2022 == 2021

D

120230

A. 020220

B. 020231

C. 002021

D. 120230

Q.8

Consider the following program:

```
#include<stdio.h>
void main()
    {
        int x=-2023;
        printf("%d", ~(x=x+5)) ;
    }
```

The output is 2017.

x

-2018
~~-2023~~

$\sim a = -(a+1)$

$\sim(x = x+5)$

$-2023+5$

$x = -2018$

$\sim(-2018)$

$= -(-2018+1)$

$= -(-2017) = 2017$


THANK YOU GW
SOLDIERS !