Branch : CSE/IT **Batch : Hinglish**

C Programming
Data Types & Operators

DPP-02

[MCQ]

1. 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 ___

(a) 4.9 (b) 4.0
(c) 4.5 (d) 4

[MCQ]

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

[NAT]

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 .

[NAT]

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

[MCQ]

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:

(a) 50 (b) 00
(c) 10 (d) Compiler error

[MCQ]

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

[MCQ]

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) 020220 (b) 020231

(c) 002021 (d) 120230

[NAT]

8. Consider the following program:

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

The output is _____.

Answer Key

1. **(d)**
2. **(a)**
3. **(1)**
4. **(1)**
5. **(b)**
6. **(c)**
7. **(d)**
8. **(2017)**

Hints and Solutions

1. (d)

a = 12/5 + 3.0/2 + 1
= 2 + 1.5 + 1
= 4.5
a is an integer, so a = 4

I (op) I	= I
I (op) F	= F
F (op) I	= F
F (op) F	= F

2. (a)

a = 16.0/4 * 5 % 1
= 4.0 * 5 % 3
= 20.0 % 3
= ERROR

Modulus operator works only with integers.

3. (1)

a = 32 > 24 > 13 > 10 > 8 > –1 > 0
1 > 13 ⇒ 0 > 10
0 > 8
0 > – 1
1 > 0
1

a = 1

4. (1)

a = 25 > 15 > 0! = 12 < 45 > 42! = 65
1 > 0
1! = 12
1 < 45
1 > 42 ⇒ 0! = 65
1

a=1;

Output: 1

5. (b)

int a=0, b=1;

a=(a=5)&&(b=0);

// Assignment operator assigns and returns the assigned value. So, a=5&&0=0, b=0

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

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

6. (c)

P: INCORRECT. The precedence of the modulus operator is same as multiplication or division operator.
Q: INCORRECT. The result of the modulus operator contains the sign of the first operand.

7. (d)

a=2022. So, a!=2024 evaluates to 1.
a=2023. Assignment operator assigns the value and returns the assigned value.
a==2021 is equivalent to 2023==2021. So, it evaluates to 0.
Output: 120230

8. (2017)

x=x+5 → x=-2023+5=-2018

~(x) → ~(-2018) = -(-2018+1) = 2017.

Output: 2017.