



**JAIN**  
DEEMED-TO-BE UNIVERSITY

SCHOOL OF  
COMPUTER  
SCIENCE AND IT

## **DEPARTMENT OF MASTER OF COMPUTER APPLICATION**

ACTIVITY-1

MFCA

JUPG22MCA17545

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**Q)Given two bit strings of length a, find the bitwise AND, bitwise OR, and bitwise XOR these strings.**

Operator	Meaning of Operator OR A
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	Bitwise AND
	Bitwise OR
	Bitwise XOR

**Bitwise AND Operator (&):**

The output of bitwise AND is 1 if the Corresponding bits two of operands is 1. Either bit of an operand and is 0 the result of corresponding bit is evaluated to 0.

In C programming, the bitwise AND operator is denoted by &. Suppose the bitwise AND operation of two string integers 12 and 25.

12-00001100 (In Binary)

25- 00011001 (In Binary)

Bit operation of 12 and 25

00001100

00011001

00001000= 8 (In Decimal)

Ex-#include <stdio.h>

```
int main()
```

```
{
```

```
int a = 12, b = 25,
```

```
printf ("Output = %d", a & b),
```

```
return 0;
```

```
}
```

**Bitwise OR Operator | :-**

The output of bitwise OR is 1 if at least one corresponding bit of two operands is 1. In C programming, bitwise OR operation is denoted by |

12=00001100

25=00011001 (In Binary)

Bitwise OR operation of 12 and 25.

00001100

00011101 =00011101=29(in decimal)

```
Ex:-#include <stdio.h>
int main()
{
    int a = 12, b = 25 ;
    printf ("Output = %d",a/b);
    return 0;
}
```

o/p- Output = 29

**Bitwise XOR (exclusive OR) Operator :-**

A The result of bitwise XOR operator is 1 If the corresponding bits of two operands are opposite.  
It is denoted by ^

12 -00001100  
25-00011001(in binary)

**Bitwise XOR Operation of 12 and 25**

00001100  
00011001  
00010101=21(in decimal)

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

```
int main()
{
    int a = 12, b = 25;
    print ("Output = %d", a ^b);
    return 0;
}
```

0/p - Output = 21





