

# Rajalakshmi Engineering College

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## 2024\_28\_III\_OOPS Using Java Lab

### **2028\_REC\_OOPS using Java\_Week 1\_Q6**

Attempt : 1  
Total Mark : 10  
Marks Obtained : 10

#### **Section 1 : Coding**

##### **1. Problem Statement**

Joey is learning about bitwise operations and is working on a project that involves extracting specific bits from integers. He needs to write a program that takes an integer and the number of bits N as input and outputs the value of the lowest N bits of the integer.

Help Joey in his project to understand and visualize how bitwise operations work in practical scenarios.

##### ***Input Format***

The first line of input consists of an integer X, representing the given integer.

The second line consists of an integer N, representing the number of bits to extract.

### **Output Format**

The output displays "Result: " followed by an integer representing the value of the lowest N bits of the given integer.

Refer to the sample output for formatting specifications.

### **Sample Test Case**

Input: 85

2

Output: Result: 1

### **Answer**

```
import java.util.Scanner;

class BitwiseExtraction {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int x = sc.nextInt();
        int n = sc.nextInt();
        int mask = (1 << n) - 1;
        int result = x & mask;
        System.out.println("Result: " + result);
        sc.close();
    }
}
```

**Status : Correct**

**Marks : 10/10**