**LAB EXERCISES**

**EX.NO:04**

**PRIME NUMBERS FROM 1TO N**

**AIM:**

**To write a C program to generate all prime numbers from 1 to n.**

**PROCEDURE:**

1. **Start the program.**
2. **Declare variables:**

* **n → Upper limit**
* **i, j → Loop counters**
* **flags → To check if a number is prime.**

1. **Get the value of n from the user.**
2. **Use a loop from i = 2 to n:**

* **For each i, set flag= 1**
* **Check if i is divisible by a any number from 2 to i-1;**
* **If flag =1, then i is the Prime**

1. **Repeat until all numbers are checked.**
2. **End the program.**

**PROGRAM:**

**#include <stdio.h>**

**void main()**

**{**

**int n, i, j, r;**

**clrscr();**

**printf("\nGive the value of n\n");**

**scanf("%d", &n);**

**printf("\nThe prime numbers are:\n");**

**for (i = 2; i <= n; i++)**

**{**

**for (j = 2; j < i; j++)**

**{**

**if (i % j == 0)**

**break;**

**}**

**if (j == i)**

**printf("%d\t", i);**

**}**

**getch();**

**}**

**RESULT:**

**Thus the above C program is executed and the output is obtained.**