

**EXPERIMENT NO: 7**

**TITLE:** Implement using functions to check whether the given number is prime and display appropriate messages. (No built-in math functions)

**6. PROCEDURE / PROGRAMME / ACTIVITY:**

```
#include<stdio.h>
int isprime(int num)
{
    int i;
    if(num==0||num==1)
    {
        return 0;
    }
    for(i=2; i<=num/2;i++)
    {
        if(num%i==0)
        {
            return 0;
        }
    }
    return 1;
}
void main()
{
    int num, i;
    printf("Enter a positive number\n");
    scanf("%d",&num);
    if(isprime(num))
    {
        printf("%d is prime\n",num);
    }
    else
    {
        printf("%d is not prime\n",num);
    }
}
```

**OUTPUTS:**

- Enter a number  
5  
Given number is prime
- Enter a number  
10  
Given number is not prime

### **ALGORITHM:**

**STEP 1:** Start

**STEP 2:** Read num

**STEP 3:** Call the function isprime(num)

**STEP 4:** if return value of isprime function is 1  
    **display** Given number is prime  
else  
    **display** Given number is not a prime

**STEP 5:** Stop

**FUNCTION isprime(int num)**

**STEP 1:** if (num==0 or num==1)  
    **return** 0

**STEP 2:** for (i=2; i<= num/2; i++) do the following  
    if (num% i ==0)  
        **return** 0

**STEP 3:** **return** 1

**FLOWCHART:**



