2022-2026-CSE-B

Aim:

Write a \boldsymbol{C} program to demonstrate functions without arguments and with return value.

The below code is used to check whether the given number is a prime number or not.

Exp. Name: Write a C program to demonstrate Functions without arguments and

Write the function prime().

Sample Input and Output:

```
Enter a number : 5
The given number is a prime number
```

Source Code:

FunctionCategories8.c

```
#include <stdio.h>
int prime();
void main() {
   if (prime() == 0) {
      printf("The given number is a prime number\n");
   } else {
      printf("The given number is not a prime number\n");
}
// Write the function prime()
int prime()
{
   int i,n,count=0;
   printf("Enter a number : ");
   scanf("%d",&n);
   for(i=1;i<=n;i++)
      if(n%i==0)
      count++;
   if(count=2)
   return 0;
   else
   return count;
}
```

Execution Results - All test cases have succeeded!

Test Case - 1 User Output Enter a number : 5 The given number is a prime number

| Test Case - 2 |
|--|
| User Output |
| Enter a number : 27 |
| The given number is not a prime number |

| Tes | t Case - 3 |
|--|------------|
| User Output | |
| Enter a number : 121 | |
| The given number is not a prime number | |

| Test Case - 4 |
|--|
| User Output |
| Enter a number : 1 |
| The given number is not a prime number |

| Test Case - 5 |
|--|
| User Output |
| Enter a number : 117 |
| The given number is not a prime number |

| Test Case - 6 |
|------------------------------------|
| User Output |
| Enter a number : 137 |
| The given number is a prime number |