**Assignment Number – 04**

**Aim:** Write C program to compute factorial of given positive integer using recursive

function

**Algorithm:**

Step 1. START

Step 2: Read number

Step 3: set fact=1,i=1

Step 4: check condition i<=number if false go to step 7

Step 5: fact =fact\*i

Step 6: update i=i+1 go to step 4

Step 7: display fact

Step 8: Stop

**Flowchart:**

Declare variables i, n, n1, n2, term

Start

Fact =1 ,i=1

i<=num

G

term = n1 + n2

I <= num

Input no, of terms to be printed

**NO**

Fact =fact\*i

**Yes**

I=i+2

Print fact

i <= n

stop

Program:

#include<stdio.h>

int main(){

int num,i,fact=1;

printf("enter a number\n");

scanf("%d",&num);

for( i=1;i<=num;i++){

fact=fact\*i;

}

printf("\n factorial of %d is %d",num,fact);

return 0;

}

**output:**

**enter a number: 5**

**Factorial of 5 is 120**

**Conclusion:**

Thus, we have successfully written the C program to print factorial of number. In this program we have used the int variable ‘num’, ‘i’, ‘fact’. In this program we for loop and condition to loop and print n terms. Also, used ‘scanf’ and ‘printf’ built-in function to get the input from user and to display the result on screen/ monitor respectively.