TITLE 24

Write a C program to generate the Fibonacci sequence

OBJECTIVE:

Implementation of functions.

PROBLEM STATEMENT:

To print the fibonacci series using functions.

ALGORITHM:

START

Define variables: n, i, res

INPUT: Read from the users

COMPUTATION: Compute the Fibonacci sequence

DISPLAY: Print the Fibonacci sequence as output

STOP

PROGRAM:

#include<stdio.h>

int fibonacci(int);

int main()

{

int n,i=0,res;

printf("Enter the number of terms: ");

scanf("%d",&n);

for(i=0;i<n;i++)

{

res=fibonacci(i);

printf("%d\t",res);

}

return 0;

}

int fibonacci(int n)

{

if(n==0){

return 0;

}

else if(n==1){

return 1;

}

else{

return(fibonacci(n-1)+fibonacci(n-2));

}

}

CONCLUSION:

We use functions to organize the code in a better way. This also helps in implementation of functions in mathematical approach.

OUTPUT:

Enter the number of terms: 3

0

1

1

3