

Data Structures-CSA0396

6. Write a c program to find fibonacci series using recursion.

Code:

```
#include<stdio.h>


void fibonacci(int a,intb,int n){
    int c;
    if(n==0){
        return;
    }
    else{
        c=a+b;
        printf("%d\t",c);
        n--;
        return fibonacci(b,c,n);
    }
}

int main(){
    int n;
    printf("Enter a Limit: ");
    scanf("%d",&n);

    printf("0 1 ");
    fibonacci(0,1,n-2);

}
```

Output:



```
1 #include<stdio.h>
2 void printFibonacci(int n){
3     static int n1=0,n2=1,n3;
4     if(n>0){
5         n3 = n1 + n2;
6         n1 = n2;
7         n2 = n3;
8         printf("%d ",n3);
9         printFibonacci(n-1);
10    }
11 }
12 int main(){
13     int n;
14     printf("Enter the number of elements: ");
15     scanf("%d",&n);
16     printf("Fibonacci Series: ");
17     printf("%d %d ",0,1);
18     printFibonacci(n-2);
19     return 0;
20 }
```

Enter the number of elements: 5
Fibonacci Series: 0 1 1 2 3

...Program finished with exit code 0
Press ENTER to exit console.