

CSA0670-Design and Analysis of Algorithms for Tractability Problems.

1. Write a program to Print Fibonacci Series using recursion.

Program:

```
def fibonacci(n):
    if n <= 0:
        return "Input should be a positive integer."
    elif n == 1:
        return [0]
    elif n == 2:
        return [0, 1]
    else:
        series = fibonacci(n - 1)
        next_value = series[-1] + series[-2]
        series.append(next_value)
        return series

def print_fibonacci_series(n):
    series = fibonacci(n)
    print("Fibonacci series up to", n, "terms:")
    for num in series:
        print(num, end=" ")
    print()

n = 10
print_fibonacci_series(n)
```

Output :

Fibonacci series up to 10 terms:

0 1 1 2 3 5 8 13 21 34

Time Complexity: $O(n)$