Experiment 6: Fibonacci using Recursion

Aim:

To print Fibonacci series using recursion.

Algorithm:

1. Start.
2. Define recursive function fibo(n).
   - If n==0 return 0.
   - If n==1 return 1.
   - Else return fibo(n-1)+fibo(n-2).
3. Read n.
4. Print first n terms.
5. Stop.

Code:

```
#include <stdio.h>

int fibo(int n) {
    if (n == 0) return 0;
    else if (n == 1) return 1;
    else return fibo(n - 1) + fibo(n - 2);
}

int main() {
    int n, i;
    printf("Enter number of terms: ");
    scanf("%d", &n);

    printf("Fibonacci Series: ");
```

```
    for(i = 0; i < n; i++)
        printf("%d ", fibo(i));

    return 0;
}
```

Sample Output:

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

=== Code Execution Successful ===
```

Result:

The program generates Fibonacci series using recursion.