

**Department of Computer Science,
Data Structures (CSC212),
Tutorial 7
Recursion**

Question 1.

Given the following algorithm:

```
public static int fib(int n) {  
    if (n < 2) return 1;  
    else  
        return fib(n-1)+fib(n-2);  
}
```

- a. Define the base case(s).
- b. Define the recursion case.
- c. Trace the algorithm for the following call: *fib(5)*

Question 2.

- a. Write a recursive algorithm to print the contents of a stack in reverse order. The input stack should not be changed at the end of your algorithm.
- b. Write a recursive algorithm to print the contents of a queue in reverse order. The input queue should not be changed at the end of your algorithm.