# Multiple Choice Questions

### 1. Choose the correct answer

1. Recursion is always better than iteration
2. Recursion uses more memory compared to iteration
3. Recursion uses less memory compared to iteration
4. Iterative function is always better and simpler to write than recursion

Ans: b (Recursion uses more memory compared to iteration)

### 2. Which of the following statements is correct?

1. Iteration requires more system memory than recursion
2. Recursion requires more system memory than iteration
3. Both need equal amount of memory
4. Cannot be compared

Ans: b (Iteration requires less memory than recursion. In recursion, each function call is stored in the call stack. So, this statement iteration requires more system memory than recursion is false)

### 3. In the absence of an exit condition in a recursive function, the following error is given

1. Compilation error
2. Run time error
3. Logical error
4. none

Ans: b

When a recursive function is called in the absence of an exit condition, it results in an infinite loop due to which the stack keeps getting filled (stack overflow).

This results in a run time error

### 4. Choose the correct option

function something (int number) {

if (number <= 0)

return 1;

else

return number \* something(number-1);

}

something (4);

1. 12
2. 24
3. 1
4. 0

Ans: b

(It is a recursive implementation of a factorial

### 5. Which of the following cannot be solved using recursion?

1. Tower of Hanoi
2. Fibonacci series
3. Tree Traversal
4. Problems without base case

Ans: d