**Final Exam**

This is an open book exam. You can use the book as reference.

**Part I: Write Program**

1. Please submit your code to LiveLab (URL: livelab.georgiasouthern.edu/JavaLiveLab2020) under PFinal1

(10 pts) Write a **recursive** method that returns the number of the uppercase letters in a string using the following method header:

**public static int** countUppercaseLetter(String s)

For example, countUppercaseLetter("ABc") returns 2.

Write a test program that prompts the user to enter a line of characters, invokes the method, and displays the result.

Here is a sample run:

<Sample Run>

Enter a string: Good Morning

The number of uppercase letters is 2

</Sample Run>

2. Please submit your code to LiveLab (URL: livelab.georgiasouthern.edu/JavaLiveLab2020) under PFinal2

Add the following new method in the BST class.

/\*\* Returns the number of nodes in this binary tree \*/

public int getNumberOfNodes()

Requirements:

1. Don’t use return size;

2. Write a recursive method that returns the number of nodes starting from the root.

Use the code from <https://liveexample.pearsoncmg.com/test/PFinal2.txt> to complete your program.