**CS 114 Assignment 5**

**Topic: Stack (4 points)**

**For each task, submit the source code with detail comments electronically (no hardcopy).**

1. **(1 points)**
2. **Write a main java test program to read from records from the test.dat and create the Lstack list. Display the complete Lstack after the EOF.**

**Print the size of the Lstack.**

1. **Using stack concept to write a StackTokenTest.java class to determine each input string from test.dat has matching left and right parentheses.**

**Display “valid” if it is match or “invalid” if it does not match for each**

**input line record.**

1. **(1 point)**

**Use testall.dat**

**Same as (b) above, but also match { } and [ ].**

1. **2 point**

**Using java.util.Stack and java.util.StringTokenizer to write a java program to calculate a postfix expression.**

**Input will be**

**5 2 + 8 5 - \***

**2 4 - 5 2 \* +**

**9 3 / 6 / 4 \* 10 –**