Comp 496ALG Project 2 Instructor’s Test Cases

*Instructions for each test case:* The Traveling Salesman Problem test data is always listed as City number followed by x-location, y-location and cityName. Start all tours at City 0. Your main program must

1. Print the test case data
2. Print the Distance Matrix
3. Print the LABELED results for Brute Force method, Greedy Approximation method and Minimum Spanning Tree approximation method. Your printed results must correspond to your main program.
4. Turn in a copy of your program’s printout.
5. Test Case #2 only: Create a graph of the TSP city locations, labeled with the city names. Show each tour found. Label the tours. (Use different colors for each tour). In addition create a second graph that shows the minimum spanning tree found and the MST Approximation tour based on that minimum spanning tree.

Instructor’s Test Case #1

n = 5

City 0: 79.0 45.0 A

City 1: 57.0 18.0 B

City 2: 24.0 46.0 C

City 3: 20.0 5.0 D

City 4: 46.0 27.0 E

Instructor’s Test Case #2

n = 12

City 0: 48.0 42.0 A

City 1: 181.0 51.0 B

City 2: 26.0 93.0 C

City 3: 99.0 85.0 D

City 4: 107.0 90.0 E

City 5: 54.0 184.0 F

City 6: 98.0 118.0 G

City 7: 117.0 176.0 H

City 8: 119.0 32.0 I

City 9: 185.0 72.0 J

City 10: 68.0 32.0 K

City 11: 136.0 142.0 L