Collected Homework: Prim's and Kruskal's Algorithms

Name (Print):

Math 371: Topics in Mathematics – Graph Theory Part of the assignment due March 5, 2010 at 3:00pm

> В С D А 3 1 4 2 5 2 1 5 3 G 5 Η E F 2 2 6 3 1 3 3 2 3 4 J K Ι L

(a) Use **Prim's** algorithm to find a minimal spanning tree of the above weighted graph. Make it clear where you are beginning. List the edges in the order they are selected, sketch the minimal spanning tree, and give the total weight of the minimal spanning tree.

(b) Use **Kruskal's** algorithm to find a minimal spanning tree of the above weighted graph. List the edges in the order they are selected, sketch the minimal spanning tree, and give the total weight of the minimal spanning tree.