Problem Set 6: Due Tues, Dec 6

Instructions: Turn in your answers to the questions below in class on or before the due date. You must include at least a brief summary of each question below as part of your answer (including the question number). Be sure your answers are legible.

1. Similar to the example given in class, trace the Edmonds-Karp Max-Flow algorithm using the following graph.

   ![Graph for Edmonds-Karp Max-Flow algorithm]

2. Similar to the example given in class, trace the Bron-Kerbosch algorithm for enumerating cliques for the following graph.

   ![Graph for Bron-Kerbosch algorithm]

3. Similar to the examples given in class, trace Dijkstra’s algorithm to find the shortest paths from vertex 0 in the following graph.

   ![Graph for Dijkstra’s algorithm]

4. Similar to the example given in class, trace Prim’s algorithm to find the minimum spanning tree for the graph in Question 3. Assume the start node selected by Prim’s algorithm is 0.
5. Similar to the example given in class, trace Bellman-Ford’s algorithm to find the shortest paths from vertex 0 for the following graph.