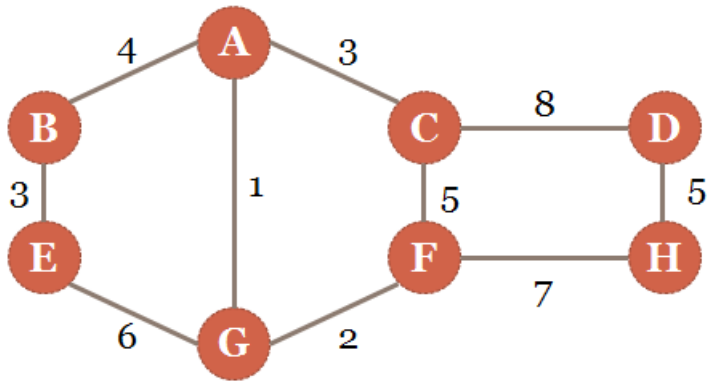**Homework 7**

6 Points Total

A reprieve from coding and a chance to test your mastery of the concepts presented this week.

(a) Give the depth-first traversal. List the stack at each step.
(b) Give the breadth-first traversal. List the queue at each step.
(c) Draw three spanning trees. List the weight of each.
(d) Give the adjacency matrix representation
(e) Give the adjacency list representation
(f) Find minimum spanning tree using either Prim's or Kruskal's algorithm. List which algorithm you choose. List the edge considered and set A (or the connected components) at each step. List the final set B (the set of edges). Also draw the minimum spanning tree determined as well as the weight.

1 point each.

For the sake of simplicity, assume in all cases where applicable that the start vertex is A.

Please prepare your homework submission as a MS Word (*.doc, *docx, *.rtf), text (*.txt), or PDF file to submit via Sakai.