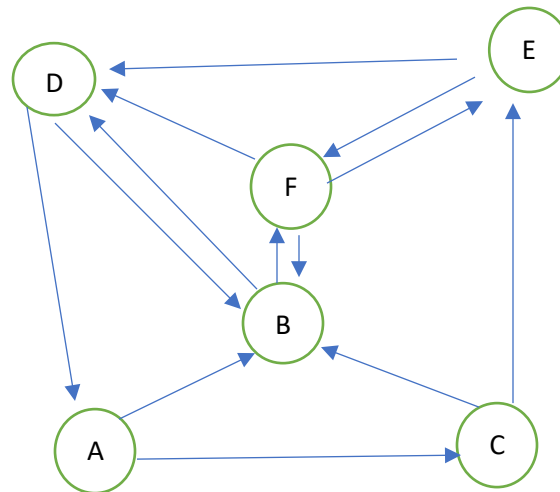**CSC 6013 – Summer 2022**

Worksheet for Brute Force Algorithms

Submit your work as a docx or pdf file through Blackboard.

Show your work, not just your final answer!!!!

1) **Breadth First Search**

a) Represent this graph as an adjacency **matrix**. Arrange the vertices in alphabetical order as row and column labels. [Draw this on paper. You do not have to write code to create a data structure.]

b) Represent this graph using adjacency **lists**. Arrange the neighbors of each vertex in alphabetical order. [Draw this on paper. You do not have to write code to create a data structure.]

c) Show the steps of a breadth first search with the graph given above using the technique given in the class notes. Use the adjacency lists representation that you created in 1b. Start at vertex A.