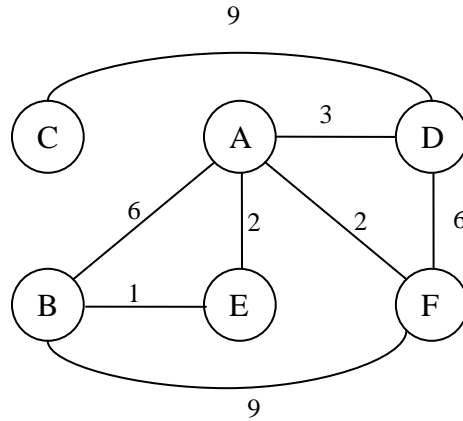


**CMSC132 Spring 2013 Quiz #6**

**Name:**

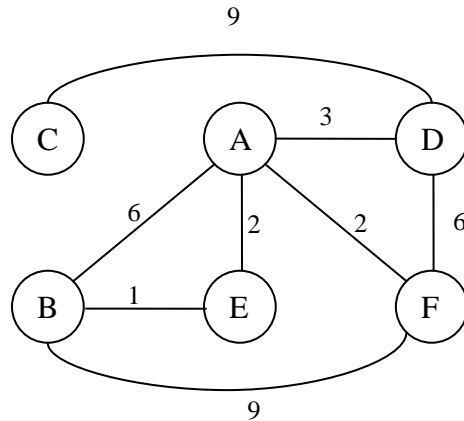
**Student ID:**

Use the following graph to answer the questions below.



1. [5 points] Give the order in which the nodes of this graph would be visited in performing a **Breadth First Search** starting at vertex **F**. When more than one choice can be made, pick nodes to visit using alphabetical order.
2. [5 points] Give the order in which the nodes of this graph would be visited in performing a **Depth First Search (DFS)** starting at vertex **F**. When more than one choice can be made, pick nodes to visit using alphabetical order.

**MORE ON BACK PAGE!!**



3. [10 points] Apply Dijkstra's algorithm using **F** as the starting (source) node. Indicate the cost/distance and predecessor for each node in the graph after processing 2 nodes. Don't leave any of the boxes blank or you will lose points!

**Starting table (filled in for you):**

Node	A	B	C	D	E	F
Cost	$\infty$	$\infty$	$\infty$	$\infty$	$\infty$	0
Predecessor	-	-	-	-	-	F

**FILL IN THE TABLES BELOW FOR PROCESSING TWO SUCCESSIVE NODES. (You will need to copy many of the entries from the preceding table.)**

After processing first node:

Node	A	B	C	D	E	F
Cost						
Predecessor						

After processing second node:

Node	A	B	C	D	E	F
Cost						
Predecessor						