Name: _____   J#: _____

Jackson State University
CSC 323 Algorithm Design and Analysis, Fall 2016
Instructor: Dr. Natarajan Meghanathan
Quiz 7 (Take Home Quiz)
Maximum Points: 35   **Due on: Nov. 10, 2016: 11.30 AM**

Print this page and the next page and staple them (as cover sheets) along with your answer sheets.

For the graph assigned to you (see next page), do the following:

(1-10 pts) Run a Breadth First Search (BFS) on the graph and find the level numbers of the vertices as well as identify the tree edges and cross edges.

(2-5 pts) Use the results of (1) to determine whether the graph is bipartite (2-colorable) or not. If the graph is bipartite, identify the two partitions of the graph. If the graph is not bipartite, identify the edges that prevent the graph from being bipartite.
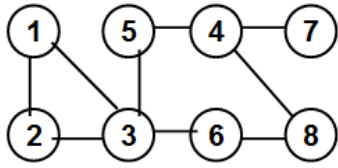
(3-10 pts) Run a Depth First Search (DFS) on the graph and find the order in which the vertices are pushed in as well as popped out of the stack. Also identify the tree edges and back edges.

(4-10 pts) Use the results of (3) to identify the articulation points on the graph.
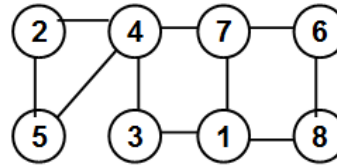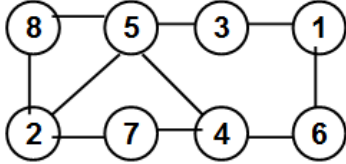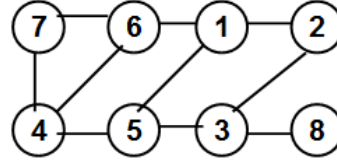
Name: _____   J#: _____

Kirubel Benalfew

1 — 5 — 4 — 7
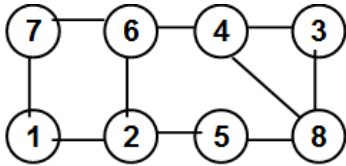2 — 3 — 6 — 8

Yosef Getachew

2 — 4 — 7 — 6
5 — 3 — 1 — 8

Quavanti Hart

8 — 5 — 3 — 1
2 — 7 — 4 — 6

Deonta Kilpatrick

7 — 6 — 1 — 2
4 — 5 — 3 — 8

Kabinad Melaku

7 — 6 — 4 — 3
1 — 2 — 5 — 8

Shawndon Portis

8 — 4 — 5 — 3
6 — 1 — 2 — 7

Nicholas Whitfield

4 — 3 — 1 — 2
8 — 6 — 5 — 7

Ladarius Felix

6 — 5 — 1 — 2
3 — 4 — 7 — 8

Alishia Harmon

6 — 1 — 5 — 4
7 — 2 — 3 — 8

Algesa Haywood

8 — 4 — 3 — 1
6 — 5 — 7 — 2

Darius Leroy

1 — 2 — 7 — 8
5 — 6 — 3 — 4

Michael Moore

8 — 1 — 5 — 6
2 — 7 — 4 — 3
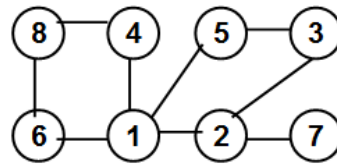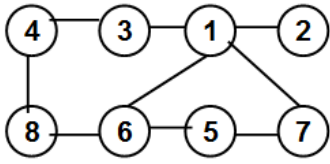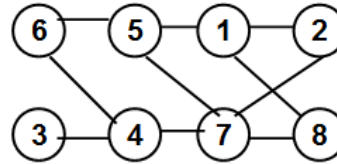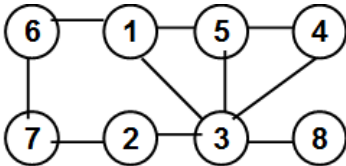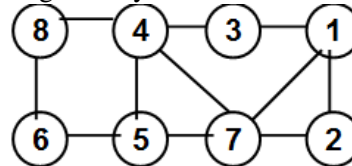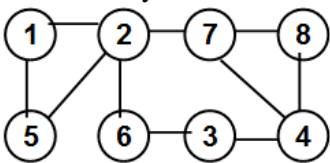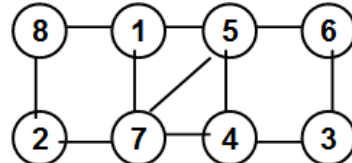
Karmeen Powell-Childress

7 — 1 — 3 — 4
5 — 8 — 2 — 6

Brian Williams

3 — 2 — 1 — 4
6 — 8 — 5 — 7