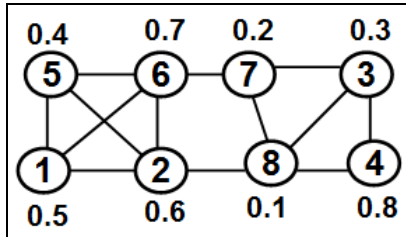**CSC 641 Network Science, Fall 2017**
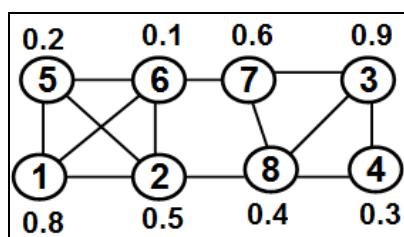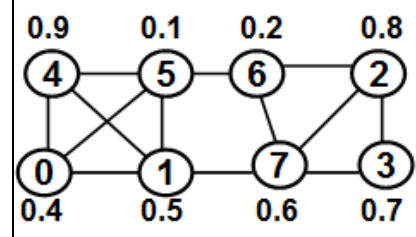**Quiz 1 (Take Home: Due: Sept. 19, 2017: 6 PM)**   **Total: 100 pts**

1) (25, 35 pts) Determine the **maximal node matching** and **maximal assortative matching** for the following graph. Determine the following for each of the above: (i) the set of edges constituting the matching (ii) the % of node matches (iii) assortative index of the matching.
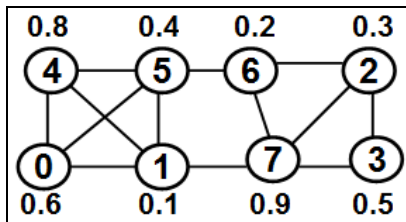
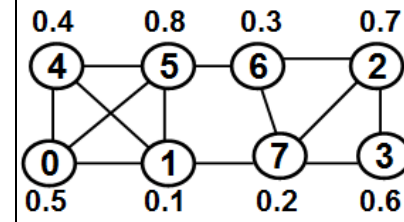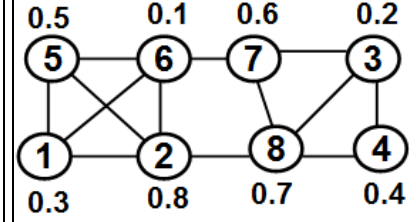|		
Alton Franklin	Chirone Gamble	Robin Ghosh
Eric Jackson	Cheronika Manyfield-Donald	Jamoris Miller
Jonathan Townes	Shengtan Wu	Roman Zubatiuk
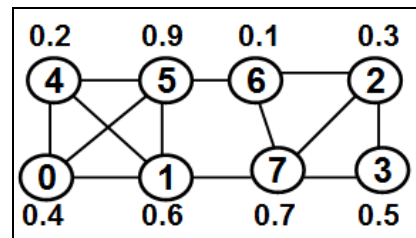
2) (20 pts, 20 pts) For the directed graph assigned to you below, determine the following:
i) Cocitation coupling matrix. Determine the pair(s) of vertices that are most strongly coupled.
ii) Bibliographic coupling matrix. Determine the pair(s) of vertices that are most strongly coupled.

Alton Franklin

Chirone Gamble

Robin Ghosh

Eric Jackson
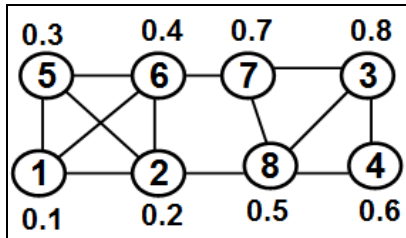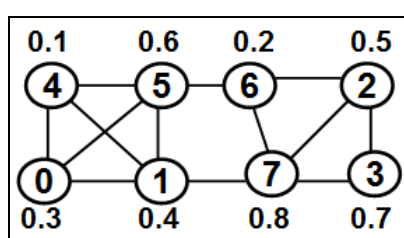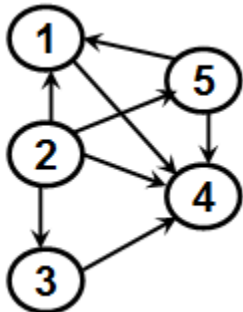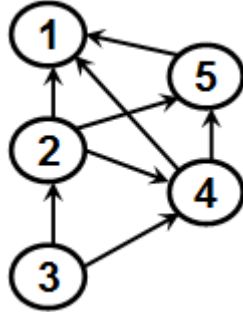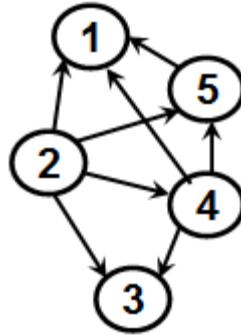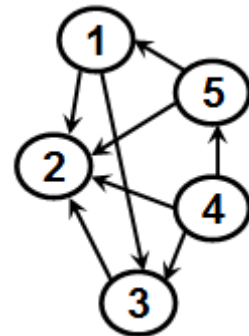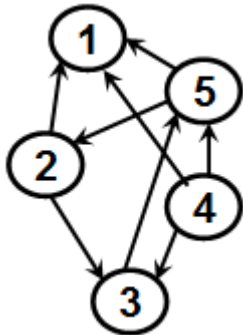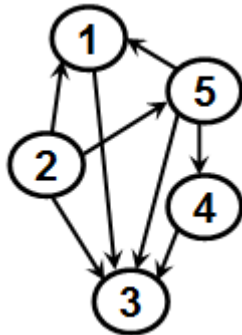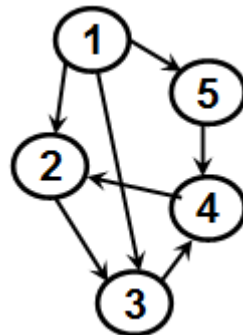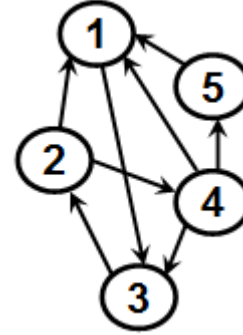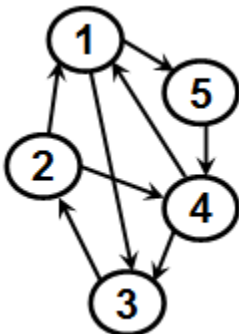
Jonathan Townes

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