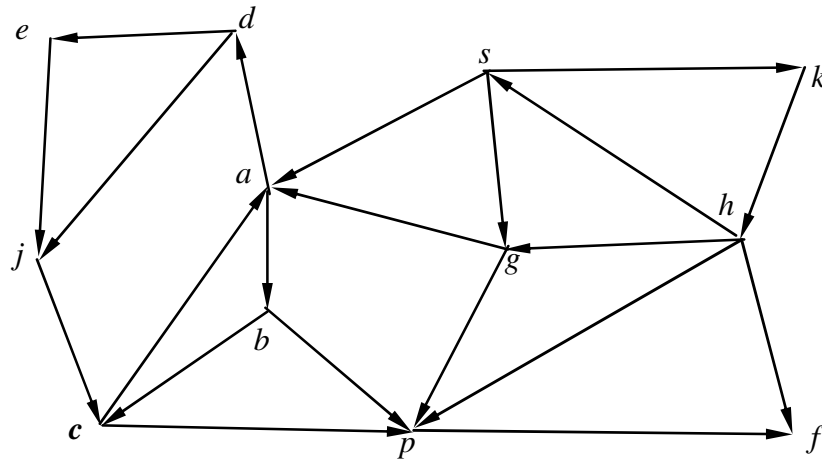**Assignment # 4**

1. Conduct a DFS for the following graph. Please label each vertex *u* with the discovery time and the finish time *d(u)/f(u)*. You should start the traversal from vertex *a*, and follow the alphabetic order whenever you need to make choices.

2. List all edges that belong to each of the following sets:

   The set of back edges:

   The set of forward edges:

   The set of cross edges:

3. Identify the strongly connected components and draw the component graph.