

## CS540 Section 4 HW3 04/16/2015

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P2.

(a)  $A=\{1\}$

$B=\{1,2,3\}$

$C=\{3\}$

$D=\{1,2,3\}$

$E=\{2\}$

$F=\{1,3\}$

$G=\{1,3\}$

(b) Final Solution:

A:1, B:2, C:3, D:1, E:2, F:3, G:1

(c) When revised, add  $(x_k, x_j)$  to the end of the queue. Initialize the queue with all arcs in alphabetical order. This state is the state when the AC-3 algorithm terminated.

$A=\{1\}$

$B=\{1\}$

$C=\{2\}$

$D=\{2,3\}$

$E=\{3\}$

$F=\{2\}$

$G=\{\}$

(d) Final Solution:

A:1, B:2, C:3, D:1, E:2, F:3, G:1