

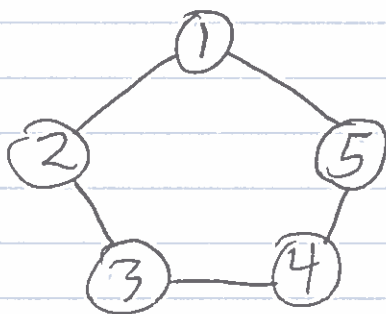
Sean Carter
10/26/16

Focs

1. i. B
ii. A
iii. D
iv. C

2. ~~a)~~ $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 1$
d) $1 \rightarrow 2 \rightarrow 5 \rightarrow 1$

3.

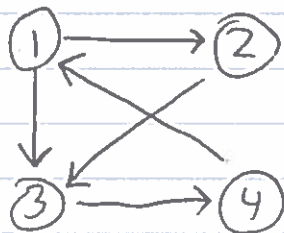


4. $G = (\{1, 2, 3, 4, 5, 6\}, \{\{1, 2\}, \{1, 3\}, \{2, 3\}, \{3, 4\}, \{3, 5\}, \{4, 5\}\})$

5. i. A
ii. C
iii. B

6. ~~1, 2, 3, 4, 5, 6~~ $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5$
A and C

7.



~~Not a DAG~~
Not a DAG

- 8(b). $G = (\{1, 2, 3, 4\}, \{(1, 2), (2, 4), (3, 1), (3, 2), (3, 4)\})$

9(7).

$$A = \begin{matrix} & \begin{matrix} 1 & 2 & 3 & 4 \end{matrix} \\ \begin{matrix} 1 \\ 2 \\ 3 \\ 4 \end{matrix} & \begin{bmatrix} 0 & 1 & 0 & 1 \\ 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 1 \\ 0 & 1 & 0 & 0 \end{bmatrix} \end{matrix}$$

without
messages

$$A = \begin{bmatrix} 0 & 1 & 0 & 1 \\ 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 1 \\ 0 & 0 & 0 & 0 \end{bmatrix}$$