1) i) b   ii) a   iii) d   iv) c

2) a) ~~{ }~~ {1,2,3,4}

   b)   None

   c)   None
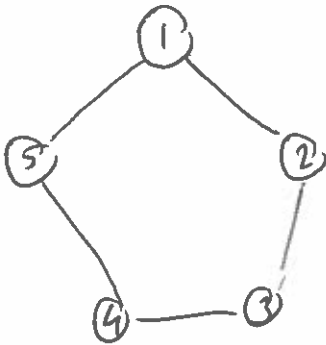
   d)   {1,2,5}

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3.

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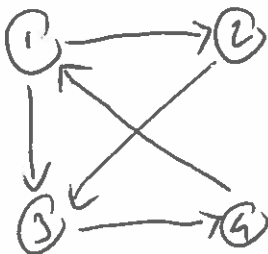$\{4,5\}\}\}$

II.

5. i) a
    ii) c
    iii) b

6. {a, c}

7.

Yes ({1,2,3,4} and {1,3,4})

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

7.

$$\begin{array}{c c}
 & \begin{array}{c c c c} 1 & 2 & 3 & 4 \end{array} \\
\begin{array}{c} 1 \\ 2 \\ 3 \\ 4 \end{array} &
\left[\begin{array}{c c c c}
0 & 1 & 0 & 1 \\
0 & 0 & 0 & 0 \\
0 & 1 & 0 & 1 \\
0 & 0 & 0 & 0
\end{array}\right]
\end{array}$$