Consider the directed graph, $G$, given below.

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

1. Draw the picture for $G$. (3 Points)

2. Show the adjacency matrix and adjacency list for the graph. (7 Points)

3. Give one Topological sort order for $G$. Use the algorithm discussed in class and show all your work, including elements on the queue at the beginning of every step through the algorithm. (10 Points)