Name:

Math 336
Spring 2024
Dr. Lily Yen

Quiz 2
Show all your work

| Name: |  |
| ---: | :--- |
| Number: |  |
| Signature: |  |
| Score: | $\_/ 10$ |

## Problem 1:

a. Take the given tree and fill the entries of its adjacency matrix with 1's where appropriate. Do not fill with 0's.

b. Suppose the tree above is rooted at vertex 0 , construct the extended Prüfer code of the tree.

$$
\begin{array}{llllll}
2 & 3 & 1 & 4 & 5 & 6 \\
1 & 1 & 0 & 0 & 0 & 0
\end{array}
$$

Score: $\quad / 5$
Problem 2: Given the second row of an extended Prüfer code: 3203150, construct its first row, then draw the corresponding rooted labelled tree.

7 edges and 8 vertices.

$$
\begin{array}{lllllll}
4 & 6 & 2 & 7 & 3 & 1 & 5 \\
3 & 2 & 0 & 3 & 1 & 5 & 0
\end{array}
$$



