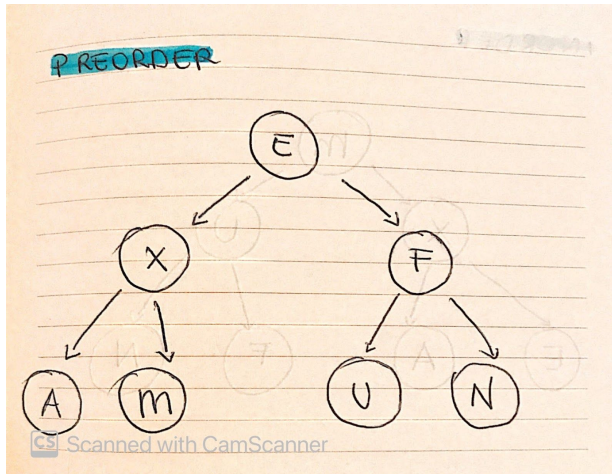


Trees I - Practical

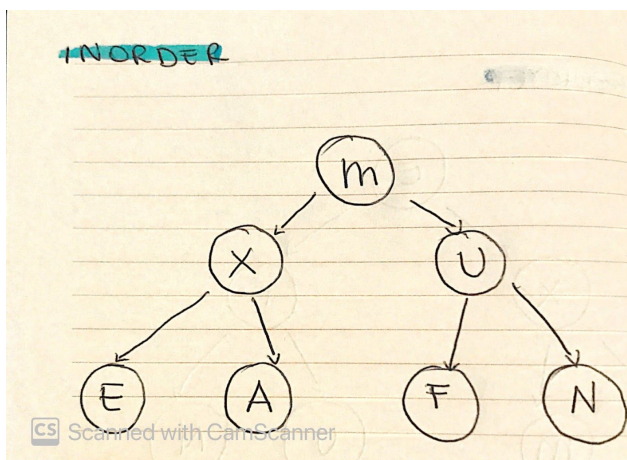
Question 3

Consider a binary tree, where each node holds a single character. The nodes, in no particular order are ['A', 'E', 'F', 'M', 'N', 'U', 'X'].

Draw a representation of this binary tree such that a preorder traversal of the tree gives the result: "EXAMFUN".



Draw a representation of this binary tree such that an inorder traversal of the tree gives the result: "EXAMFUN".



Question 4

Write the pseudocode for an algorithm which counts the total number of descendants of a node in a binary tree.

```
int numDescendants(position p) {  
    Initialise numDescendants equal to 0  
    For each child in the children of p  
        numDescendants = numDescendants + 1  
    End for  
    Return numDescendants  
}
```