A binary tree is constructed from binary compound terms \( n(a, b) \) called nodes, where components \( a \) and \( b \) are either nodes or integers. Suppose integer components are restricted to the values 0 and 1.

Write a Prolog program to return a list of all the 0’s and a list of all the 1’s in a given tree. For example, the goal \( \text{enum}(n(0, 1), X, Y) \) should instantiate \( X \) to \([0]\) and \( Y \) to \([1, 1]\). The program is required to use difference lists. [20 marks]