

COP 3502 Suggested Program Edits/Questions: Binary Trees (Week 10 Programs)

- 1) Edit any of the traversals (preorder, inorder, postorder) in bintree.c to only print out the even values stored in the binary tree pointed to by the input tree node.
- 2) Rewrite the find function in bintree.c **iteratively** so that it returns the depth at which the value being searched for was found in the tree (how many links from the root) OR -1 if the value is not in the tree.
- 3) Write a function that takes in a pointer to the root of a binary tree and returns the sum of the values stored in all of the **leaf nodes** of the tree.
- 4) Create a struct to store a node of a binary search tree of strings (each string can have no more than 99 characters) and write a search function that takes in a pointer to the root of such a binary search tree. (Tree should be ordered by strcmp.)
- 5) Write a recursive function to return the minimum value stored in any **leaf node** in a binary search tree.

Note: Function prototypes are intentionally not provided as it's good practice for students to learn how to create their own function prototypes, given a general description of a task.