Q1. Evaluate the following postfix expression, showing the values in the stack at each indicated point in the Postfix string(points A, B, and C). (10p)

\[
\begin{array}{c}
8 \ 5 \ * \ 4 \ 6 \ + \ / \ 2 \ 8 \ * \ - \ 4 \ 5 \ + \ *
\end{array}
\]

The final value of the expression is _______________
Q2. Write a C program to read a group of input lines, each containing one word. Print each word that appears in the input and the number of times that it appears. (word “END” terminates the input process) (25p)
Q3. Develop a non recursive algorithm for Find smallest Node in Binary Search Tree. (10p)
Q3. Develop a recursive algorithm for Find smallest Node in Binary Search Tree. (10p)

Q4. Write a function that takes root of a binary tree and returns the number of nodes that has only left child. (20p)
Q5. Write an algorithm to delete all the leaves from a binary tree, leaving the root and intermediate (internal) nodes in place. (20p)

Q6. Write a recursive function to count occurrences of a substring in a string. (15p)
Q6. Write a recursive function to count occurrences of a given character. (7p)
Q7. Consider a linked list whose members are integer numbers only. (20 P)

Write a function `removeItems(NODE *head)` function that removes the two digit elements. Consider following example:

Input LLList: List-> 41-> 3-> 41-> 2-> 7-> 7-> 1-> 9-> 12-> NULL

Output LLList: List-> 3-> 2-> 7-> 7-> 1-> 9-> NULL

Node * removeItems(NODE *head)

Q7. write a function which would delete the alternate nodes starting with the second node, and would return the remaining list. It is specified that the given list, pList contains at least two nodes. However, total number of nodes could be even or odd. Your code should be able to handle both the cases. (20p)