THIS IS THE FIRST PART OF WORK. I have done major part of it. I will send u the code as well.

In the first one data structure was arrays as the stack! Which I did most of it not all..

1. To build an interactive menu driven system with the following functions:

A. Convert to infix, prefix or postfix.

B. Evaluate any type of expression (infix, postfix, prefix)

C. Exit

Note: Your program must be able to determine the current expression before converting to the other two types.

Example (sample output): 5+3 \* (9-2) This is an infix expression; do you want to convert it to (A) postfix or (B) prefix or (C) for both? Select A, B or C option. 2.

All inputs are from default input device (keyboard) and all output are to be shown on screen.

Note: The input digit would be from 0 – 99 and only not more than 6 operands and 5 operators in the expression. For all the algebraic expression, each operand and operator should have a space in between for easy evaluation and conversion.

3. Your program should only evaluate the following operators: +, -, \*, /, ^ (power) Note: Put ^ has the highest precedence.

4. Imbalanced parentheses must be handled correctly, example: if there is any imbalanced parentheses occurred, your system should have alerted the user – which part with error.

5. Data structures: Only array to be used to illustrate stack. Marks will be deducted (-10%) if any other data structure other than array is implemented. 6. Functions: Minimum FIVE functions (exclude MAIN function) Minimum FOUR functions should have RETURN type and with minimum ONE parameters but not more than FOUR parameters.

Move on for second part

THIS IS THE SECOND PART

This is the continuation of with the following requirements:

* User will be given option whether to read from file (user needs to type the location of the file) or from default input (keyboard):
* • If it is read from file, your system should be able to show on screen before any of the functions mentioned is being performed. (default file location is: c:\G51PGA\default.txt)
* • If it is read from default input, your system should be able to save it in a default file – c:\G51PGA\input.txt 2. All outputs are to be shown on screen:
* • If the input is read from file, all outputs (correct conversion and evaluation only)should be appended in the same file.
* • If the input is read from keyboard, all outputs (correct conversion and evaluation only) should be written in a default file – c:\G51PGA\output.txt.
* Note: The input digit would be from “-99 to 99 and only not more than 6 operands and 5 operators in the expression.
* For all the algebraic expression, each operand and operator should have a space in between for easy evaluation and conversion.
* Your program should be able to handle ANY errors, example: If there is any wrong character or incorrect sequence appears in the expression, your system should have alerted the user
* Data structures: Only singly linked list (pointer) to be used to illustrate stack.
* Functions: Minimum SEVEN functions (exclude MAIN function) Minimum SEVEN functions should have RETURN type and with minimum ONE parameters but not more than FOUR parameters. All functions must have function prototypes.