Digital Assignment – 1   **4-1-2020**

Questions:

1. Explain how stack is used for recursion process in Towers of Hanoi problem with necessary pseudocode. Trace out your pseudocode and show the stack content for each step with necessary diagrams.

2. Write the pseudo code to implement stack using 2 queues and explain with suitable example and necessary diagrams.

3. Write the pseudo code to implement queue using 2 stacks and explain with suitable example and necessary diagrams.

4. Consider stack and queue. Design a pseudocodeto determine whether they have same elements and check these elements are inserted in the same order.

5. Give the progress of converting the infix expression 2+1-(4-3*1)*3 to its postfix and prefix expression and represent position of operator and operand in memory after every step diagrammatically.Also evaluate the converted postfix and prefix expressions