

**Computer Engineering Department, S V N I T, Surat.**  
**B Tech-II (CO) 3<sup>rd</sup> semester**  
**Course: Data Structure and Algorithm (CO-203)**  
**Tutorial – 5**

1. Give non-recursive algorithm that reverses a singly linked list of n elements. An algorithm should use no more than constant storage beyond that needed for the list itself.
2. Identify the data structure and write an algorithm for addition of two quadratic equation that results third quadratic equation.
3. The web browser allows viewing a particular web page using BACK and FORWARD button using the cache. Find appropriate data structure and write an algorithm for this task.
4. Describe an algorithm which perform swapping two consecutive nodes in a singly linked list.
5. To divide a circular linked list into two almost equal sized circular linked list in a single pass. Maintaining sequence of nodes in resultant lists is not necessary.