**RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES**

**Data Structures**

**Date:01-02-2016**

# Assignment –III

1. Create Singly linked list (SLL) with 10 elements and perform following operations on created SLL:
2. Find the element at 5th position.
3. Replace the 8th element value with 3rd element value.
4. Find the element at Multiples of 2 position (2nd position, 4th position, 6th position)
5. Make 5th node as the first node( head node)
6. Write a c program to perform following Insertion operation in SLL ( With two temporary pointers)
7. at beginning of SLL
8. at ending of the SLL
9. at middle of the SLL
10. Write a c program to perform following Insertion operation in SLL ( With Single temporary pointer)
11. at beginning of SLL
12. at ending of the SLL
13. at middle of the SLL
14. Write a c program to perform following deletion operation in SLL ( With two temporary pointers)
15. at beginning of SLL
16. at ending of the SLL
17. at middle of the SLL
18. Write a c program to perform following deletion operation in SLL ( With Single temporary pointer)
19. at beginning of SLL
20. at ending of the SLL
21. at middle of the SLL
22. Write a c program to get the 10th element value, 9th element value , 8th element value….. 3rd element value(use program 1 data from this assignment).
23. Write a c program to perform following operations in SLL
24. Search the given element in the SLL
25. Sort all the elements in the SLL
26. Write a c program to perform swapping of adjacent elements.

Ex: if elements of the SLL are : 1 2 3 4 5 6 7

Then output should be: 2 1 4 3 6 5 7

1. Write a c program to perform reverse of the SLL.
2. Write a c program to find whether loop existed or not in SLL.

# Bonus Mark

1. Write a c program to arrange the elements in the SLL in chronological order (dictionary order)