**Data Structure**

**CSE-206, CSE-17**

**2018**

Single Linked List:

1. Take two linked lists as input and make a new link list with the average value of each index of those two linked lists.

Example: L1: 10, 20, 30,40,50

L2: 20, 40,60, 20, 100

Output: 15, 30, 45, 30, 75

2. Take two linked list and merge them in another linked list in sorted order.

Example: L1: 1, 9, 2, 4, 10

L2: 3, 1,5

Output: 1,2,3,4,5,9,10

3. Take a linked list and delete the odd values.

Example: L:10, 15,20,30,34,39,41

Output: 10,20,30,34

4. Delete duplicate values from the list.

Example: L: 1, 10, 3, 9, 7, 3, 7,8

Output: 1, 10,3,9,7,8

**Stack and Queue:**

1. Make a queue using two stacks.
2. Consider the standard algorithm for converting a decimal number (base 10) into a binary number (base 2). This algorithm makes use of a single stack.

**Binary search:**

1. You are given an array A of size N, and Q queries to deal with. For each query, you are given an integer X, and you're supposed to find out if X is present in the array A or not.

Input: size of array: 5

Array A: 10 40 111 210 52

Number of turns to search

Search: 10

11

120

300

210

60

40

52

Output: Yes

No

No

No

Yes

No

No

Yes