**ADVANCED DATA STRUCTURES**

**Assignment I: Hashing**

1. Construct hash table of size 10 using linear probing without replacement strategy for collision resolution. The hash function is h(x)=x%10. Consider slot per bucket is one.

31, 3,4,21,61,6,71,8,9,25. [6]

2. Explain about the skip list and give its applications. [6]

3. For the given set of values 11,33,20,88,79,98,44,68,66,22. Create a hash table with size 10 and resolve collision using chaining with replacement and without replacement. Use the modulus hash function ( key%size) [6]

4. What is the hash function? and what are the characteristics of good hash function? Explain different types of hash Functions? [6]

5. Write a short note on skip list [6]

6. Construct the hash table of size 10 using linear probing with replacement stratergy for collision resolution . The hash function is h(x)=x%10. Calculate total number of comparisons required for searching. Consider slot per bucket is 1.

25,3,21,13,1,2,7,12,4,8. [6]