QUESTION BANK FOR DATA STRUCTURES | I CSE

UNIT - 5	
Part – A (Short Answer Questions)	
1	Differentiate Linear search and binary search
2	Define Hashing
3	Explain Hash Function
4	List different types of popular hash functions
5	Define Collision
6	State different types of collision resolving techniques
7	Define Separate Chaining
8	Define Open Addressing
9	Define Linear probing
10	Define Quadratic Probing
11	Define Double Hashing
12	Define rehashing
13	List the uses of hash table
Part – B (Long Answer Questions)	
1	Explain linear search with example
2	Explain Binary search with example
3	Differentiate linear search algorithm with binary search algorithm.
4	Define hashing and discuss the different hashing functions with an example.
5	Define collision and discuss any two collision resolution techniques
6	Explain Chaining with an example
Part – C (Problem Solving and Critical Thinking)	
1	Apply binary search and find the average number of comparisons required to find an element 11,15,17,19,21,25,27,29,31
2	Using linear search, delete the number 26 from the following list of numbers and give the steps 10 6 3 7 17 26 56 32 87
3	Use quadratic probing to fill the Hash table of size 11. Data elements are 23,0,52,61,78,33,100,8,90,10,14,
4	Analyze input (371, 323, 173, 199, 344, 679, 989) and hash function h(x)=x mod 10, Show the result Separate Chaining, linear probing
5	Analyze input (371, 323, 173, 199, 344, 679, 989) and hash function $h(x)=x \mod 10$, Show the result using quadratic probing, and double hashing $h2(x)=7 - (x \mod 7)$.
6	Apply quadratic hashing to fill the hash table of size 11 elements 20,5,10,22,33,40,50,30,51,31
7	Show the each step of hash table entries for the given data set using linear probing 12,45,67,88,27,78,20,62,36,55 (size=10)