| **QUESTION BANK** |
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**UNIT - I**

| **Q. No.** | **QUESTION** | **CO** | **LEVEL** | **MARKS** |
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| 1 | 1. Explainabout the methods of collision resolving techniques in hashing. | CO1 | L2 | 7 |
| 1. Apply quadratic probing hashing technique to insert the following elements 58, 48, 79, 46, 54, 32, 24, 19, 18 into an empty hash table with hash function f(x)= x% 17 | CO2 | L3 | 7 |
| 2 | 1. Explain Hash table and Hash Function with example. | CO1 | L2 | 4 |
| 1. Apply Linear Probing Technique to insert the following elements into an empty hash table whose size is 11.   54,26,93,17,77,31,44,55,20 | CO2 | L3 | 10 |
| 3 | 1. Illustrate how double hashing can resolve collisions with an example. | CO1 | L2 | 6 |
| 1. Develop the code to implement insert operation in separate chaining hashing technique. | CO2 | L3 | 8 |
| 4 | 1. Explain the Rehashing collision resolution technique with an example. | CO1 | L2 | 6 |
| 1. Apply the hash function ‘key mod 7’, insert the following sequence of keys in the hash table using separate chaining technique. Keys:50, 700, 76, 85, 92, 73 and 101 | CO2 | L3 | 8 |
| 5 | 1. Choose any collision resolution technique to the following input 4322, 1334, 1471, 9679, 1989, 6171, 6173, 4199 where the hash function x mod 10. | CO2 | L3 | 8 |
| 1. Justify your answer in choosing a specific collision resolution technique. | CO2 | L3 | 6 |
| 6 | 1. Apply the hash function ‘key mod 7’, insert the following sequence of keys in the hash table using Linear Probing Technique. Keys:50, 700, 76, 85, 92, 73 and 101 | CO2 | L3 | 7 |
| 1. Demonstrate universal hashing with an example. | CO1 | L2 | 7 |
| 7 | 1. The keys 12,18,13,2,3,23,5,and 15 are inserted into an initially empty hash table of length 7hash function h(k)= k mod (hash table size) choose rehashing technique. | CO2 | L3 | 7 |
| 1. Explainextendible hashing with an example. | CO1 | L2 | 7 |
| 8 | Develop the code to implement the following operations in separate chaining hash technique  1. Insert 2.Search 3. Delete | CO3 | L3 | 14 |
| 9 | Construct the code to implement the following operations in separate chaining technique  1. Insert 2.Search 3. Delete | CO2 | L3 | 14 |
| 10 | 1. Develop the code to implement searching operation in the quadratic probing. | CO2 | L3 | 7 |
| 1. Apply Linear Probing Technique to insert the following elements into an empty hash table whose size is 11. Elements: 113, 117, 97, 100, 114, 108, 116, 105, 99 | CO2 | L3 | 7 |