1. What is time complexity and space complexity? What is best case, worst case and average case time complexity?

2. Implement quick sort.

3. Implement heap sort.

4. What is hashtable? Implement hashtable using chaining method.

5. What is load factor of hashtable? How it is related to collision handling technique?

6. Write a program to convert infix expression into postfix and then solve it?.

7. How to use stack to find a path between two points in a maze game?

8. How to display a singly linear linked list in reverse order (without modifying contents)?

9. How to reverse a singly linear linked list using recursion and without recursion?

10. How to check if given singly linear linked list is palindrome or not? Time complexity should be O(n) and space complexity should be O(1).

11. Implement add last, traverse and search function in a generic (for any data type) doubly linked list.

12. Implement binary search tree in-order and post-order using recursion and without recursion?

13. What are different methods of implementing graph? Explain with diagram and code snippet.

14. How to implement BFS and DFS algorithm on graph?

15. What is minimum spanning tree and its applications? Implement Prim's MST algorithm.