GRAPHS - SET 1 QUESTIONS

Question 1:

- ❖ **Problem link**:
  https://practice.geeksforgeeks.org/problems/print-adjacency-list-1587115620/1
- ❖ **Difficulty level**: Easy
- ❖ **Expected Complexity**:
  - ➢ Time: O(V+E)
  - ➢ Extra space: O(1)

Question 2:

- ❖ **Problem link**: https://leetcode.com/problems/find-center-of-star-graph/
- ❖ **Difficulty level**: Easy
- ❖ **Expected Complexity**:
  - ➢ Time: O(E)
  - ➢ Extra space: O(1)

Question 3:

- ❖ **Problem link**:
  https://practice.geeksforgeeks.org/problems/bfs-traversal-of-graph/1
- ❖ **Difficulty level**: Easy
- ❖ **Expected Complexity**:
  - ➢ Time:O(V + E)
  - ➢ Extra space: O(V)

Question 4:

- ❖ **Problem link**:

  https://practice.geeksforgeeks.org/problems/depth-first-traversal-for-a-graph/1
- ❖ **Difficulty level**: Easy
- ❖ **Expected Complexity**:
    - ➢ Time:O(V + E)
    - ➢ Extra space: O(V)

Question 5:

- ❖ **Problem link**:

  https://practice.geeksforgeeks.org/problems/detect-cycle-in-a-directed-graph/1
- ❖ **Difficulty level**: Medium
- ❖ **Expected Complexity**:
    - ➢ Time: O(V+E)
    - ➢ Extra space: O(V)

Question 6:

- ❖ **Problem link**: https://practice.geeksforgeeks.org/problems/topological-sort/1
- ❖ **Difficulty level**: Medium
- ❖ **Expected Complexity**:
    - ➢ Time: O(V+E)
    - ➢ Extra space: O(V)

Question 7:

- ❖ **Problem link**: https://leetcode.com/problems/all-paths-from-source-to-target/
- ❖ **Difficulty level**: Medium
- ❖ **Expected Complexity**:
  - ➢ Time: $O(2^n.n)$
  - ➢ Extra space: $O(2^n.n)$

Question 8:

- ❖ **Problem link**:
  https://practice.geeksforgeeks.org/problems/m-coloring-problem-1587115620/1
- ❖ **Difficulty level**: Hard
- ❖ **Expected Complexity**:
  - ➢ Time: $O(M^N)$.
  - ➢ Extra space: $O(N)$

Question 9:

- ❖ **Problem link**: https://practice.geeksforgeeks.org/problems/alien-dictionary/1
- ❖ **Difficulty level**: Hard
- ❖ **Expected Complexity**:
  - ➢ Time: $O(N + K)$
  - ➢ Extra space: $O(N)$