**Recall Quiz - Day18**

1. Which of the following is now a characteristic of Dynamic Programming ?
2. Overlapping Sub Problems
3. Optimal SubStructure Property
4. **Loop Invariant**
5. All of these

2. Greedy Algorithm focuses on which of the following problem?

1. Searching Problem
2. Sorting Problem
3. **Optimization Problem**
4. None of these

3. Select the incorrect Option for Greedy Algorithm Approach ?

1. **Greedy algorithms exhibit characteristics of overlapping subproblems**
2. Greedy approach can be used to solve Knapsack problems
3. Greedy algorithm does not always lead to optimal solution
4. Greedy algorithm uses greedy approach to find optimal solution

4. Identify the incorrect Option for Dynamic Programming?

1. Top Down Approach is implemented using Memoization
2. Bottom Up Approach is implemented using Tabulation
3. Overlapping SubProblems is a characteristic for Dynamic Programming
4. **It is very hard to prove correctness of algorithm using Dynamic Programming**

5. Consider a problem statement, Given a set of non-negative integer, and a value K, determine if there is a subset of the given set with sum equal to K. Which approach would you use ?

1. Divide and Conquer
2. **Dynamic Programming**
3. Greedy Approach
4. Sorting and Searching