

## AOA PT1 Question Bank

1. Differentiate between Dynamic Programming and Divide and Conquer approach.
2. Explain Asymptotic Notations.
3. Write an algorithm for quick sort and derive time complexity.
4. Write an algorithm for insertion sort and derive time complexity.
5. Write an algorithm for selection sort and derive time complexity.
6. Write an algorithm for merge sort and derive time complexity.
7. Explain Master theorem
8. Algorithm and complexity of LCS
9. Problem on Quick Sort
10. Problem on LCS
11. Problem on Bellman Ford
12. Solve the following recurrence relation using
  - a. Substitution Method
  - b. Master Theorem
13. Problem on Time complexity using
  - a. Count Method
  - b. Table Method