

CS402 Analysis & Design of Algorithms (ADA)

RGPV Important Questions (2022–2025 PYQ Based)

For Website Upload

UNIT-1: Divide & Conquer & Algorithm Analysis

Most Important Questions

1. Explain Merge Sort with algorithm and complexity analysis.
2. Sort the given elements using Merge Sort.
3. Explain Quick Sort with suitable example.
4. Analyze Best, Average and Worst Case of Quick Sort.
5. Explain Strassen's Matrix Multiplication with time complexity.
6. Compare Strassen Method and Classical Matrix Multiplication.
7. Solve recurrence relation using substitution method.
8. Explain Divide and Conquer technique with examples.
9. Explain Heap and Heap Sort with example.
10. Explain Algorithm and characteristics of Algorithm.

Frequently Asked Short Questions

- Define Asymptotic Notations.
- Explain Big O Notation.
- Explain Theta Notation.
- Explain Omega Notation.

- Difference between Merge Sort and Quick Sort.
- Applications of Divide and Conquer.