

Computer Algorithm

Tutorial No.- 1 on Unit I

1. Write note on “recursive algorithms”

Explain recursive algorithms with example.

OR

- a. Give recursive and iterative algorithm for Fibonacci series
 - b. Give recursive and iterative algorithm to find factorial of given number
 - c. Give recursive and iterative algorithm to find GCD of given numbers
 - d. Give recursive and iterative algorithm to solve the problem of “Towers of Hanoi”.
2. What is algorithm? What are different characteristics of algorithm?
 3. Write note on “Algorithm Specification”
 4. Write note on “Asymptotic notations”
Explain different asymptotic notations
Define – a. Big Oh (O) b. Omega (Ω) c. Theta (Θ)
d. Little Oh (o) e. Little Omega (ω)
 5. Explain time and space complexity
 6. Explain performance analysis and performance measurement
 7. Write note on “Randomized Algorithms”

Differentiate between Las Vegas and Monte Carlo Algorithms

Give solution to the problems of “Finding repeated element” and “Primality Testing”