Computer Science Ics Part 1 Chapter 3 Online Test

Sr	Questions	Answers Choice
1	Which is solved by Dynamic Programming.	A. Coin Change B. Fibonacci sequence C. Merge sort D. Puzzle solving
2	Knowing if a problem is solvable hellps.	A. Increase complexity B. Save time C. Generate random output D. Avoid design
3	If P= NP ,this means	A. Some NP unsolvable B. all NP solvable inpolynomial time C. All NP unsolvable D. Same space complexity
4	What is generate and Test algorithm	A. Tests all options B. Picks one solution C. skips testing D. Uses no logic
5	How does Linear search work	A. Halve search interval B. Check each item one by one C. Explore branch deeply D. Use queue for nodes
6	How does selection sort work.	A. Swap adjacent B. Select minium form unsorted part C. Use queue for nodes D. Store intermediate results
7	What is role of algorithm in problem solving.	A. Gives steps B. Ignores logic C. Random process D. Blocks solutions
8	What is the main advantage of Dynamic programming.	A. Avoid redundant work B. Locally optimal results C. Solve independent problems D. Explore alloptions
9	NP- complete matters because.	A. Solved faster than P B. Solving one solves all NP C. aLWAYS TRACTABLE D. nO REAL USE
10	What does “input” mean in a computational problem.	A. Result after processing B. Steps to solve C. Data at start D. Type of problem
11	What is computational problem.	A. solved using algorithm B. Solved using creativity C. Has unclear input D. Has no process
12	How do BFS and DFS differ.	A. BFS Stack, DFS -queue B. BFS -level , DFS -depth C. BFS Sort, DFS-Search D. BFS always slower
13	How does Backtracking work.	A. Break in to parts B. Make local choices C. Build and backtrack D. Store subproblems
14	Problems in NP and NP-hard are called.	A. P B. BPP C. NP Complete D. Tractable

15	Sovable problems differ becasue they.	A. Take exponential time B. Need better hardware C. Halt with a result D. Have no input
16	For which problems is Backtracking suitable	A. Optimal substrcuture B. Explore all combnations C. ONe optimal choice D. No overlapping problems
17	How does Backtracking work.	A. Break into parts B. Build and Backtrack C. Store subproblems D. Make local choices
18	Which alorithm finds node relationships in a graph.	A. Bubble sort B. Linear Search C. BFS D. Selection sort
19	Which is an NP complete problem.	A. Sorting B. Knapsack C. GCD finding D. Binary search
20	Tractable prolem canbe solved	A. In exponential time B. Efficiently with large input C. With no algorithm D. Are always NP hard