

Computer Science Ics Part 1 Chapter 3 Online Test

Sr	Questions	Answers Choice
1	Which is solved by Dynamic programming.	<p>A. <p>Coin Change</p> B. <p>Fibonacci sequence</p> C. <p>Merge sort</p> D. <p>Puzzle solving</p></p>
2	What does space complexity measure.	<p>A. <p>Execution time</p> B. <p>Memory usage</p> C. <p>Number of steps</p> D. <p>Result accuracy</p></p>
3	Why is tractability important.	<p>A. <p>Output color</p> B. <p>Language choice</p> C. <p>Solve efficiently</p> D. <p>Input type</p></p>
4	What does page rank algorithm analyze.	<p>A. <p>Page links</p> B. <p>page color</p> C. <p>Page size</p> D. <p>Page font</p></p>
5	NP- complete matters because.	<p>A. <p>Solved faster than P</p> B. <p>Solving one solves all NP</p> C. <p>ALWAYS TRACTABLE</p> D. <p>nO REAL USE</p></p>
6	For which problems is Backtracking suitable.	<p>A. <p>Optimal substructure</p> B. <p>Explore all combinations</p> C. <p>One optimal choice</p> D. <p>No overlapping problems</p></p>
7	How does Divide and conquer work	<p>A. <p>Make local choices</p> B. <p>Break, solve, combine</p> C. <p>Store subproblem results</p> D. <p>Try all options, backtrack</p></p>
8	Why are commonly used algorithms important.	<p>A. <p>Reduce hardware cost</p> B. <p>Solve common problems efficiently</p> C. <p>Remove need for data structures</p> D. <p>for theory only</p></p>
9	How does Divide and conquer work.	<p>A. <p>Make local choices</p> B. <p>Break, solve, combine</p> C. <p>Store subproblem results</p> D. <p>Try all options, backtrack</p></p>
10	What is the purpose of search algorithms	<p>A. <p>Arrange data</p> B. <p>Find specific data</p> C. <p>analyze nodes</p> D. <p>Save memory</p></p>
11	For which problems is Backtracking suitable	<p>A. <p>Optimal substructure</p> B. <p>Explore all combinations</p> C. <p>ONE optimal choice</p> D. <p>No overlapping problems</p></p>
12	The characteristic of a well defined problem is.	<p>A. <p>Ambiguous goals and unclear requirements</p> B. <p>Vague processes and inputs</p> C. <p>Clear goals, inputs, processes, and outputs</p> D. <p>Undrined solutions</p></p>
13	What is generate and Test algorithm	<p>A. <p>Tests all options</p> B. <p>Picks one solution</p> C. <p>skips testing</p> D. <p>Uses no logic</p></p>
14	An algorithm that sort data by stepping through the list and swapping adjacent elements if needed is.	<p>A. <p>Selection sort</p> B. <p>Quick sort</p> C. <p>Bubble sort</p> D. <p>Merge sort</p></p>

15	Solvable problems differ because they.	A. <p>Take exponential time</p> B. <p>Need better hardware</p> C. <p>Halt with a result</p> D. <p>Have no input</p>
16	NP hard problems are	A. <p>Easy to solve</p> B. <p>Always solvable</p> C. <p>As hard as NP problem</p> D. <p>In class P</p>
17	How does Backtracking work.	A. <p>Break into parts</p> B. <p>Build and Backtrack</p> C. <p>Store subproblems</p> D. <p>Make local choices</p>
18	Which technique is used in Merge sort.	A. <p>Greedy</p> B. <p>Divide and conquer</p> C. <p>Dynamic Programming</p> D. <p>Back tracking</p>
19	What is role of algorithm in problem solving.	A. <p>Gives steps</p> B. <p>Ignores logic</p> C. <p>Random process</p> D. <p>Blocks solutions</p>
20	Which is an ill-defined problem.	A. <p>Check even number</p> B. <p>Find shortest path</p> C. <p>Reduce poverty</p> D. <p>Count book arrangements</p>