

Computer Science Ics Part 1 Chapter 3 Online Test

Sr	Questions	Answers Choice
1	What does time complexity measrue.	<p>A. <p>Memory use</p></p> <p>B. <p>Time growth with input</p></p> <p>C. <p>Number of loops</p></p> <p>D. <p>Output accuracy</p></p>
2	How does Divide and conquere work.	<p>A. <p>Make local chices</p></p> <p>B. <p>Break ,solve, combine</p></p> <p>C. <p>Store subproblem results</p></p> <p>D. <p>Try alloptions, backtrack</p></p>
3	Which of the following correctly describes a solvable problem.	<p>A. <p>Cannot be solved</p></p> <p>B. <p>Takes infinite time</p></p> <p>C. <p>Soved by algorithm in finite time</p></p> <p>D. <p>Has no input/output</p></p>
4	Which notation shows the upper bound of time complexity.	<p>A. <p>Omega</p></p> <p>B. <p>Theta</p></p> <p>C. <p>Big O</p></p> <p>D. <p>Lambda</p></p>
5	Which is a Greedy Algorithm example	<p>A. <p>Fibonacci sequence</p></p> <p>B. <p>Coin change</p></p> <p>C. <p>Merge sort</p></p> <p>D. <p>Puzzle solving</p></p>
6	Which diagram shows P, NO, NP-hard, NP Complete	<p>A. <p>Bar chart</p></p> <p>B. <p>Pie chart</p></p> <p>C. <p>Venn diagram</p></p> <p>D. <p>Lne graph</p></p>
7	Why are commonly used algorithms important.	<p>A. <p>Reduce hrdware cost</p></p> <p>B. <p>Solve common problems efficiently</p></p> <p>C. <p>Remove need for data structures</p></p> <p>D. <p>for theory only</p></p>
8	Problems in NP and NP-hard are called.	<p>A. <p>P</p></p> <p>B. <p>BPP</p></p> <p>C. <p>NP Complete</p></p> <p>D. <p>Tractable</p></p>
9	For which problems is Backtracing suitable.	<p>A. <p>Optimal substructure</p></p> <p>B. <p>Explore all combinations</p></p> <p>C. <p>ON optimal choice</p></p> <p>D. <p>No overlapping problems</p></p>
10	Problems in class P are solved in.	<p>A. <p>Exponentilal time</p></p> <p>B. <p>Polynomial time</p></p> <p>C. <p>Non determinaistic time</p></p> <p>D. <p>lfinite time</p></p>
11	What is the main advantage of Dynamic Programming.	<p>A. <p>Avoid redundant work</p></p> <p>B. <p>Locally optimal results</p></p> <p>C. <p>Sole independent problems</p></p> <p>D. <p>Explore all options</p></p>
12	How do BFS and DFS differ.	<p>A. <p>BFS Stack, DFS -queue</p></p> <p>B. <p>BFS -level, DFS -depth</p></p> <p>C. <p>BFS Sort, DFS-Search</p></p> <p>D. <p>BFS always slower</p></p>
13	Whcih is an Ill-defined problem.	<p>A. <p>Check even number</p></p> <p>B. <p>Find shortest path</p></p> <p>C. <p>Reduce poverty</p></p> <p>D. <p>Count book arrangements</p></p>
14	What does page rank algorithm analyze.	<p>A. <p>Page links</p></p> <p>B. <p>page color</p></p> <p>C. <p>Page size</p></p> <p>D. <p>Page font</p></p>

15	What does space complexity measure.	A. <p>Execution time</p> B. <p>Memory usage</p> C. <p>Number of steps</p> D. <p>Result accuracy</p>
16	What does "input" mean in a computational problem.	A. <p>Result after processing</p> B. <p>Steps to solve</p> C. <p>Data at start</p> D. <p>Type of problem</p>
17	The meaning of NP in computational complexity is.	A. <p>Non deterministic polynomial time</p> B. <p>Negative polynomial time</p> C. <p>No trivial polynomial time</p> D. <p>Numerical polynomial time</p>
18	Easy to verify but hard to solve problems are in.	A. <p>NP</p> B. <p>P</p> C. <p>NP hard</p> D. <p>Undecidable</p>
19	How does Linear search work	A. <p>Halve search interval</p> B. <p>Check each item one by one</p> C. <p>Explore branch deeply</p> D. <p>Use queue for nodes</p>
20	What is a key limitation of Greedy Algorithms.	A. <p>Too complex</p> B. <p>Always optimal</p> C. <p>Not always optimal</p> D. <p>High memory use</p>