

Computer Science Ics Part 1 Chapter 3 Online Test

Sr	Questions	Answers Choice
1	The meanig of NP in computational complexity is.	<p>A. <input type="checkbox"/> Non deterministic polynomial time</p> <p>B. <input type="checkbox"/> Negative polynomial time</p> <p>C. <input type="checkbox"/> No trivial polynomial time</p> <p>D. <input type="checkbox"/> Numerical polynomial time</p>
2	Waht does O (n2) indicate.	<p>A. <input type="checkbox"/> Linear growth</p> <p>B. <input type="checkbox"/> Constant time</p> <p>C. <input type="checkbox"/> Square of input</p> <p>D. <input type="checkbox"/> Logarithmic growth</p>
3	What is output when checking if 8 is even.	<p>A. <input type="checkbox"/> Found at 2</p> <p>B. <input type="checkbox"/> Even</p> <p>C. <input type="checkbox"/> Odd</p> <p>D. <input type="checkbox"/> Yes</p>
4	Which is solved by Dynaimc programming.	<p>A. <input type="checkbox"/> Coin Change</p> <p>B. <input type="checkbox"/> Fibonacci sequence</p> <p>C. <input type="checkbox"/> Merge sort</p> <p>D. <input type="checkbox"/> Puzzle solving</p>
5	Why are commonly used algorithms important.	<p>A. <input type="checkbox"/> Reduce hrdware cost</p> <p>B. <input type="checkbox"/> Solve common problems efficiently</p> <p>C. <input type="checkbox"/> Remove need for data structures</p> <p>D. <input type="checkbox"/> for theory only</p>
6	A seenario where Dynamic progrmming proves most useful	<p>A. <input type="checkbox"/> Problem withou overlapping sub problems</p> <p>B. <input type="checkbox"/> Problems solved by making local choices</p> <p>C. <input type="checkbox"/> Problems with overlapping sub problems and optimal sbstructure</p> <p>D. <input type="checkbox"/> Problem divided into independent sub problems</p>
7	Why is tractability important.	<p>A. <input type="checkbox"/> Output color</p> <p>B. <input type="checkbox"/> Language choice</p> <p>C. <input type="checkbox"/> Solve efficiently</p> <p>D. <input type="checkbox"/> Input type</p>
8	Which alorithm finds node relationships in a graph.	<p>A. <input type="checkbox"/> Bubble sort</p> <p>B. <input type="checkbox"/> Linear Search</p> <p>C. <input type="checkbox"/> BFS</p> <p>D. <input type="checkbox"/> Selection sort</p>
9	For which problems is Backtrackign suitable.	<p>A. <input type="checkbox"/> Optimal substructure</p> <p>B. <input type="checkbox"/> Explore all combinations</p> <p>C. <input type="checkbox"/> One optimal choice</p> <p>D. <input type="checkbox"/> No overlapping problems</p>
10	For which problems is Backtracing suitable.	<p>A. <input type="checkbox"/> Optimal substructure</p> <p>B. <input type="checkbox"/> Explore all combinations</p> <p>C. <input type="checkbox"/> ON optimal choice</p> <p>D. <input type="checkbox"/> No overlapping problems</p>
11	What does time complexity measrue.	<p>A. <input type="checkbox"/> Memory use</p> <p>B. <input type="checkbox"/> Time growth with input</p> <p>C. <input type="checkbox"/> Number of loops</p> <p>D. <input type="checkbox"/> Output accuracy</p>
12	What is the primary goal of algorithm design techniques.	<p>A. <input type="checkbox"/> Imporve hardware</p> <p>B. <input type="checkbox"/> Sovle problems systematically</p> <p>C. <input type="checkbox"/> Reduce input size</p> <p>D. <input type="checkbox"/> Debug software</p>
13	Which is an NP complete problem.	<p>A. <input type="checkbox"/> Sorting</p> <p>B. <input type="checkbox"/> Knapsack</p> <p>C. <input type="checkbox"/> GCD finding</p> <p>D. <input type="checkbox"/> Binary search</p>
		<p>A. <input type="checkbox"/> Break in to parts</p>

14	How does Backtracking work.	B. <p>Make local choices</p> C. <p>Build and backtrack</p> D. <p>Store subproblems</p>
15	Which is a sorting algorithms.	A. <p>Linear search</p> B. <p>Quick sort</p> C. <p>DFS</p> D. <p>BFS</p>
16	Tractability depends on	A. <p>Inputs</p> B. <p>Complexity</p> C. <p>Outputs</p> D. <p>Algorithm type</p>
17	What is the main advantage of Dynamic programming.	A. <p>Avoid redundant work</p> B. <p>Locally optimal results</p> C. <p>Solve independent problems</p> D. <p>Explore alloptions</p>
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19	Which is solved by Dynamic Programming.	A. <p>Coin Change</p> B. <p>Fibonacci sequence</p> C. <p>Merge sort</p> D. <p>Puzzle solving</p>
20	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>