

## Computer Science Ics Part 1 Chapter 3 Online Test

Sr	Questions	Answers Choice
1	For which problems is Backtracing suitable.	A. Optimal substruture B. Explore all combinations C. ON optimal choice D. No overlapping problems
2	What is role of algorithm in problem solving.	A. Gives steps B. Ignores logic C. Random process D. Blocks solutions
3	NP- complete matters because.	A. Solved faster than P B. Solving one solves all NP C. aLWAYS TRACTABLE D. nO REAL USE
4	Problems in NP and NP-hard are called.	A. P B. BPP C. NP Complete D. Tractable
5	Complexity class representing problesm solvable efficinetly by a deterministic alogrithm.	A. P B. NP-Hard C. NP D. NP - Complete
6	NP hard problems are	A. Easy to solve B. Alway solvable C. As hard as NP problem D. In class P
7	Which is an example of O (log n) comlexity.	A. Sorting numbers B. Pair comparison C. Binary search D. Linear search
8	Which of the following correctly describes a solvable problem.	A. Cannot be solved B. Takes infinite time C. Soved by algorithm in finite time D. Has no input/output
9	Which is solved by dynamic programming.	A. Coin change B. Fibonacci sequence C. Merge sort D. Puzzle solving
10	What is limitation Greedy algorithms	A. Too complex B. Always optimal C. Not always optimal D. High memory use
11	Why is bubble sort not for large datasets.	A. Needs more memory B. O (n2) time complexity C. Works on sorted data only D. Can't handle numbers
12	Wheih is a sorting algorithms.	A. Linear search B. Qucik sort C. DFS D. BFS
13	A seenario where Dynaimic progrmming proves most useful	A. Problem withou overlapping sub problems B. Problems solved by making local choices C. Problems with overlapping sub problems and optimal sbstructure D. Problem divided into independent sub problems
14	How does Linear search work	A. Halve search interval B. Check each item one by one

		C. Explore branch deeply D. Vse queue for nodes
15	Why is tractability important.	A. Output color B. Language choice C. Solve efficiently D. Input type
16	What is computational problem.	A. solved using algorithm B. Solved using creativity C. Has unclear input D. Has no process
17	The halting problem is.	A. Solvable and tractable B. Unsolable and in P C. Unsolvable and not in NP D. NP Complete
18	What is the main advantages of dynamic programming.	A. Avoid redundant work B. Locally optimal results C. Solves independent problems D. Explore alloptions
19	What does time complexity measrue.	A. Memory use B. Time growth with input C. Number of loops D. Output accuracy
20	An algorithm that sort data by stepping thourgh the list and swapping adjacent elements if needed is.	A. Selection sort B. Quick sort C. Bubble sort D. Merge sort