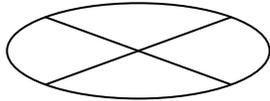
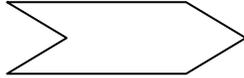
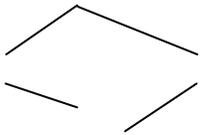


1	In $T(n) = a * T(n/b) + f(n)$, a refers to A) size of sub problem B) No. of sub problems C) Size of the problem D) Time to combine solutions
2	$T(n) = 4 T(n/2) + n$ then in Big Oh Notation it is A) $O(n^2)$ B) $O(4)$ C) $O(n)$ D) $O(\log(n))$
3	In strassen's Multiplication Algorithm the $T(n)$ is A) $7T(n) + bn^2$ B) $7T(n/2) + bn^2$ C) $8T(n/2) + bn^2$ D) $7T(n/2) + bn$
4	In a fractional Knapsack three items(1,2,3) have weights (4,8,6) & profits (12,32,30) respectively. If the weight of the knapsack is 10 then the solution is A) $3 \rightarrow 6, 2 \rightarrow 4$ B) $3 \rightarrow 4, 2 \rightarrow 6$ C) $3 \rightarrow 6, 1 \rightarrow 4$ D) $1 \rightarrow 4, 2 \rightarrow 6$
5	One of the following coin change problem does not form the greedy choice property in which we give the coin in ascending order to give the minimum no. of coins A) 32,8,1 B) 30,20,5,1 C) 50,12,3 D) 30,12,3
6	Job sequencing with deadlines we have 4 jobs with profits(30,20,10,5) & deadlines as (1,2,1,2) then the best sequence to run on the machine is A) 1,2 B) 2,1 C) 1,3 D) 1,4 E) 3,2
7	Kruskal algorithm is implementation of A) Optimal Merge Patterns B) Minimum Spanning Tree C) Optimal Binary Search Tree D) Matrix chain Product
8	The cost of the minimum spanning tree is  A) 15 B) 16 C) 17 D) 18
9	Single Source Shortest path requires the time using Greedy programming is A) $O(n \log n)$ B) $O(n^2)$ C) $O(\log n^2)$ D) $O(n)$
10	In the matrix chain product of $(2 \times 10)(10 \times 4)(4 \times 7)$ the solution is A) 136 B) 420 C) 360 D) 128
11	In a multistage graph the minimum no. of stages are A) 0 B) 3 C) 1 D) 2
12	One of the methods for All Pairs shortest path problem is similar or equivalent to A) Running Dijkstra equivalent to no. of edges B) Running Dijkstra once C) Running Dijkstra equivalent to no. of vertices D) nothing to do with Dijkstra
13	0-1 knapsack be solved using

	A) dynamic programming B) Backtracking C) Branch & Bound D) All A,B,C,E E) Genetic Programming
14	The no. of unique solution to the eight Queen Problem are A) 1 B) 92 C) 12 D) 90
15	In depth first search algorithm the no. of recursive calls we have to make are A) 2 B) 1 C) 6 D) depends on the graph
16	In breadth First Search the no. of levels of the graph are  A) 1 B) 2 C) 3 D) 4
17	The total cost of accessing the given binary search tree will be  A) 15 B) 8 C) 5 D) 11
18	Hamiltonion Graphs are A) Graphs with weights B) Graphs with no cycles C) We can traverse back to the originating node without repeating a edge D) We can't traverse back to the originating node without repeating a edge
19	Chromatic number of a graph is A) The no. of cliques in a graph B) The no. of edges in a graph C) The max. no. of colors used in the graph D) The min. no. of colors used in the graph
20	The lower bound in Graph coloring problem is A) The no. of cliques in a graph B) The no. of edges in a graph C) The clique number of a graph The vertices in any clique
21	One of the following is true A) It is the complexity of an algorithm that determines the increase in problem size that can be

	<p>solved in the given time</p> <p>B) Advent of future generations of digital computers with tremendous speed will decrease the importance of efficient algorithm</p> <p>C) Advent of future generations of digital computers with tremendous speed will increase the importance of efficient algorithm</p> <p>D) It is the space complexity that decreases with increase in computer speed</p>
22	<p>The sum of subsets is the problem of</p> <p>A) Given a set S of n integers and an integer k & we are asked if there is a subset of integers in S that sum to n</p> <p>B) Given a set S of n integers and an integer k & we are asked if there is a subset of integers in S that sum to k</p> <p>C) Given a set S of n integers and we are asked if there is a subset of integers in S that sum to n</p> <p>Given a set S of k integers and an integer n & we are asked if there is a subset of integers in S that sum to k</p>
23	<p>We interchange the values of variables m and n, using the replacement notation by $t \leftarrow m, m \leftarrow n, n \leftarrow t$. So we use three assignments. If we want to rearrange (a,b,c,d) to (b,c,d,a) by a sequence of replacements. The new value of a is to be the original value of b & so on. How many assignments are required?</p> <p>A) 3 B) 5 C) 4 D) 6</p>
24	<p>$O(f(n))$ minus $O(f(n))$ is equal to</p> <p>A) zero B) A constant C) $f(n)$ D) $O(f(n))$</p>
25	<p>The terminal nodes of a binary tree occur in the same relative position in</p> <p>a) preorder b) inorder c) postorder</p> <p>A) a & b & c</p> <p>B) b & c only</p> <p>C) c & a only</p> <p>D) a & b only</p> <p>E) only a</p>
26	<p>If we are given two out of the</p> <p>a) preorder traversal b) postorder traversal c) inorder traversal</p> <p>then the binary search tree can be constructed when</p> <p>A) inorder & postorder</p> <p>B) Postorder & preorder</p> <p>C) Preorder & inorder</p>

27	<p>In a conventional tree diagram (root at the top) then node X has a higher level number than node Y, then node X appears lower in the diagram than node Y.</p> <p>A) May be true or false rue B) False C) True D) True in most of the cases</p>																									
28	<p>If node A has three brothers and B is the father of A , What is the degree of B</p> <p>A) 1 B) 2 C) 3 D) 4</p>																									
29	<p>A sparse matrix is</p> <p>A) A matrix with very few data elements B) A matrix with minimum no. of zeros C) A matrix with zero at diagonal elements D) A matrix with dense data</p>																									
30	<p>In the Fast Fourier Transform the multiplication of the polynomial is done in</p> <p>A) $O(n^2)$ B) $O(n \log n)$ C) $O(\log n)$ D) $O(n \log n) + O(n) + O(\log n)$</p>																									
31	<p>The type of PRAM Model that is not available in parallel algorithms is</p> <p>A) CRCW B) EREW C) RECW D) ERCW</p>																									
32	<p>The lower bound for the Travelling Salesman Matrix</p> <table style="margin-left: 20px;"> <tr> <td></td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> </tr> <tr> <td>A</td> <td></td> <td>1</td> <td>4</td> <td>5</td> </tr> <tr> <td>B</td> <td>3</td> <td></td> <td>1</td> <td>2</td> </tr> <tr> <td>C</td> <td>2</td> <td>4</td> <td></td> <td>3</td> </tr> <tr> <td>D</td> <td>5</td> <td>2</td> <td>6</td> <td></td> </tr> </table> <p>A) 4 B) 5 C) 6 D) 7 E) 8</p>		A	B	C	D	A		1	4	5	B	3		1	2	C	2	4		3	D	5	2	6	
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C	2	4		3																						
D	5	2	6																							
33	<p>In Genetic Programming The mutation means</p> <p>A) The Bit values are interchanged B) The Bit values are shuffled C) The Bit values are moved left D) The bit value at a randomly chosen position is inverted</p>																									
34	<p>Pick out the wrong one in context of the genetic programming</p> <p>A) survival of the fittest B) The Weak will die first C) Show your usefulness to be loved D) The population consists of all the permutations</p>																									