

Question Bank for S.E. Examination (A.Y. 2019-2020)

Institute:	THADOMAL SHAHANI ENGINEERING COLLEGE
Branch:	COMP
Sem:	IV
Subject Name (with Subject Code):	ANALYSIS OF ALGORITHM
Number of questions:	10

1.	Which of the following is not $O(n^2)$? (a) $(15^{10}) * n + 12099$ (b) $n^{1.98}$ (c) $n^3 / (\text{sqrt}(n))$ (d) $(2^{20}) * n$
2.	The worst case running times of Insertion sort, Merge sort and Quick sort, respectively, are: (a) $\Theta(n \log n)$, $\Theta(n \log n)$ and $\Theta(n^2)$ (b) $\Theta(n^2)$, $\Theta(n^2)$ and $\Theta(n \log n)$ (c) $\Theta(n^2)$, $\Theta(n \log n)$ and $\Theta(n \log n)$ (d) $\Theta(n^2)$, $\Theta(n \log n)$ and $\Theta(n^2)$
3.	Given two sequences X and Y : X = a, b, c, b, d, a, b Y = b, d, c, a, b, a The longest common subsequence of X and Y is : (a) b, c, a (b) c, a, b (c) b, c, a, a (d) b, c, b, a
4.	Which of the following methods can be used to solve n-queen's problem? a) greedy algorithm b) divide and conquer c) iterative improvement d) backtracking
5.	Floyd Warshall's Algorithm can be applied on a) Undirected and unweighted graphs b) Undirected graphs c) Directed graphs d) Acyclic graphs
6.	What will be the chromatic number for an empty graph having n vertices? a) 0 b) 1 c) 2

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	d) n
7.	The 0-1 Knapsack problem can be solved using Greedy algorithm. (a) True (b) False
8.	Which of the following is true? a) Prim's algorithm can also be used for disconnected graphs b) Kruskal's algorithm can also run on the disconnected graphs c) Prim's algorithm is simpler than Kruskal's algorithm d) In Kruskal's sort edges are added to MST in decreasing order of their weights
9.	Problems that can be solved in polynomial time are known as? a) intractable b) tractable c) decision d) complete
10.	What is the basic principle in Rabin Karp algorithm? a) Hashing b) Sorting c) Augmenting d) Dynamic Programming

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