

1	Suppose there are two sorted lists, one contains 20 numbers and another contains 16 numbers. The maximum number of comparisons required to merge two lists into a sorted list are A) 320 B) 80 C) 40 D) 20	
2	To find successor of a node in the binary search tree if the right subtree of the node is empty. A) keep going up until we're no longer a right child B) keep going up until we're no longer a left child C) keep going up until we're a right child D) keep going down until we're no longer a right child	
3	Which one of the following will be better choice in general A) Merge Sort B) Insertion Sort C) Combining Merge sort with Insertion sort for the small lists D) Bubble Sort	
4	In the Strassen matrix multiplication the number of multiplications reduces to A) 8 B) 7 C) 6 D) 5	
5	Which of the following is false in context of the divide and conquer problems. A) Binary Search has Divide part but does not have a combine part B) Quick sort has divide part but does not have a combine part C) Merge sort has combine part but does not have a divide part D) Quick sort has a combine part but does not have a divide part	
6	Which of the following is true A) Clique in an undirected graph is a subset of the vertex set such that for every two vertices in the subset, there does not exist an edge connecting the two. B) vertex cover is set of vertices such that each edge of the graph is incident to at least one vertex of the set. C) dominating set is that Every vertex not in the set is joined to at least one member of the set by some edge D) Independent set or stable set is a set of vertices in a graph, no two of which are adjacent.	
7	For dense graphs we will prefer one of the following in general A) Adjacency List B) Incidence List C) Adjacency Matrix D) Incidence Matrix	
8	Order of complexity for Pop in a stack, Insert in an array, Search in a link list and Insertion in queue will be A) $O(1)$, $O(\log n)$, $O(n)$, $O(1)$ B) $O(1)$, $O(n)$, $O(n)$, $O(1)$ C) $O(1)$, $O(\log n)$, $O(\log n)$, $O(1)$ D) $O(1)$, $O(1)$, $O(1)$, $O(1)$	
9	Which of the following is true A) Radix sort internally requires the implementation of stable counting sort B) Radix sort internally requires the implementation of counting sort C) Radix sort internally requires the implementation of Bubble Sort D) Radix sort internally requires the implementation of Selection Sort	
10	Hashing technique of open addressing with linear probing has the problem of A) Infinite loop and termination B) Clustering and deletions C) More collisions D) Time and space complexity	