

1	We interchange values of variables m and n, using 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? A) 3 B) 4 C) 5 D) 6	
2	Which One is a better data structure in context of locality of reference or cache performance? A) Array B) Link List C) Stack D) Queue	
3	$n/100 = \Omega(n)$ A) true B) False	
4	In a Singly circular linked list organization, insertion of a record involves modification of A. One pointer B. Two pointers C. Three pointers D. Four pointer E. No Pointer	
5	If insertion sort runs in $8n^2$ steps and merge sort runs in $64n \lg n$ steps, for which values of n does insertion sort becomes slower than merge sort A) 8 B) 32 C) 64 D) 128	
6	Where an item with the largest key will be stored in a min heap A) at the root B) at any internal node C) at any external node D) at any node in the last level of the tree	
7	A binary search tree is generated by inserting in order the following integers: 50, 15, 62, 5, 20, 58, 91, 3, 8, 37, 60, 24 The number of nodes in the left sub-tree and right sub-tree of the root respectively is A) (4, 7) B) (7, 4) C) (8, 3) D) (3, 8)	
8	Consider a simple connected graph G with n vertices and n edges ( $n > 2$ ). Then which of the following statements are true? A) G has no cycles B) The graph obtained by removing any edges from G is not considered connected C) G has at least one cycle D) The graph is a tree	
9	Given a hash table with more slots than keys, and collision resolution by chaining, the worst case running time of a lookup is constant time. A) True B) False	
10	Improved Algorithm for calculating the power of a number requires 9 multiplications to get 128th power of any number. How many multiplications are required to get 127th power. A) 8 B) 9 C) 10 D) 2	