Computer Science: Data Structure

Total Questions: 21

For Answers Click Here: http://www.eduzip.com/computer-science/data-structure.html

1: Which one of the following permutations can be obtained the output using stack assuming that the input is the sequence 1,2,3,4,5 in that order ?

A. 3,4,5,1,2
B. 3,4,5,2,1
C. 1,5,2,3,4
D. 5,4,3,1,2

2: The initial configuration of the queue is a,b,c,d (a is the front end). To get the configuration d,c,b,a one needs a minimum of ?

A. 2 deletions and 3 additions
B. 3 additions and 2 deletions
C. 3 deletions and 3 additions
D. 3 deletions and 4 additions

3: Linked list are not suitable data structure of which one of the following problems ?

A. Insertion sort
B. Binary search
C. Radix sort
D. Polynomial manipulation

4: The number of possible ordered trees with three nodes A,B,C is?

A. 16
B. 12
C. 6
D. 10

5: Which of the following algorithm design technique is used in the quick sort algorithm?

A. Dynamic programming
B. Backtracking
C. Divide and conquer
D. Greedy method

6: The number of swapping needed to sort numbers 8,22,7,9,31,19,5,13 in ascending order using bubble sort is ?

A. 11
B. 12
C. 13
D. 14

7: Which of the following statement is true ?

A. Optimal binary search tree construction can be performed efficiently using dynamic programming.
B. Breath first search cannot be used to find converted components of a graph.
C. Given the prefix and post fix walks over a binary tree.The binary tree cannot be uniquely constructe
D. Depth first search can be used to find connected components of a graph.

8: Given two sorted lists of size m and n respectively.The number of comparisons needed in the worst case by the merge sort algorithm will be?

A. mn
B. max(m,n)
C. min(m,n)
D. m+n-1

9: Merge sort uses ?

A. Divide and conquer strategy
B. Backtracking approach
C. Heuristic search
D. Greedy approach

10: The following sequence of operation is performed on stack :
push(1),push(2),pop,push(1),push(2),pop,pop,pop,push(2),pop. The sequence of popped out values are ?

A. 2,2,1,1,2
B. 2,2,1,2,2
C. 2,1,2,2,1
D. 2,1,2,2,2

11: Which of the following algorithm design technique is used in the quick sort algorithm?

A. Dynamic programming
B. Backtracking
C. Divide and conquer
D. Greedy method

12: Which of the following is useful in traversing a given graph by breadth first search?

A. Stack
B. Set
C. List
D. Queue

13: Which of the following is useful in implementing quick sort?

A. Stack
B. Set
C. List
D. Queue

14: An IP address is a numeric quantity that identifies -

A. a network adapter to other devices on the network
B. the manufacturer of a computer
C. the physical location of a computer
D. none of the above

15: You can make telephone calls over the Internet using a technology called

A. Intertel
B. Telenet
C. VoIP
D. VoRP

16: What is the result of the following operation Top (Push (S, X))

A. X
B. null
C. s
D. none of these

17: Queue can be used to implement ?

A. quick sort
B. merge sort
C. heap sort
D. insertion sort

18: The number of binary trees with 3 nodes which when traversed in post order gives the sequence A,B,C is ?

A. 3
B. 9
C. 7
D. 5

19: Sparse matrices have ?

A. no zero
B. many zero
C. higher dimenstion
D. none

20: The postfix expression for * + a b - c d is?

A. ab + cd - *
B. ab cd + - *
C. ab + cd * -
D. ab + - cd *

21: A vertex of degree one is called

A. padent
B. isolated vertex
C. null vertex
D. colored vertex

