



Data Structure MCQS

BY Shuseel Baral

Solved Multiple Choice Questions of Data Structure

Data Structure MCQs

By Shuseel Baral

For more MCQs of Data Structure visit: <http://www.siteforinfotech.com/p/data-structure-mcq-sets.html>

Solved Multiple Choice Questions of Data Structure

Fundamentals of Data Structure

Set-1

1. Which if the following is/are the levels of implementation of data structure
 - A) Abstract level
 - B) Application level
 - C) Implementation level
 - D) All of the above
2. **A binary search tree whose left subtree and right subtree differ in height by at most 1 unit is called**
 - A) AVL tree
 - B) Red-black tree
 - C) Lemma tree
 - D) None of the above
3. level is where the model becomes compatible executable code
 - A) Abstract level
 - B) Application level
 - C) Implementation level
 - D) All of the above
4. **Stack is also called as**
 - A) Last in first out
 - B) First in last out
 - C) Last in last out
 - D) First in first out
5. **Which of the following is true about the characteristics of abstract data types?**
 - i) It exports a type.
 - ii) It exports a set of operations
 - A) True, False
 - B) False, True
 - C) True, True
 - D) False, False
6. is not the component of data structure.
 - A) Operations
 - B) Storage Structures
 - C) Algorithms
 - D) None of above
7. **Which of the following is not the part of ADT description?**
 - A) Data
 - B) Operations
 - C) Both of the above
 - D) None of the above

Solved Multiple Choice Questions of Data Structure

8. Inserting an item into the stack when stack is not full is called Operation and deletion of item form the stack, when stack is not empty is calledoperation.

- A) push, pop
- B) pop, push
- C) insert, delete
- D) delete, insert

9. Is a pile in which items are added at one end and removed from the other.

- A) Stack
- B) Queue
- C) List
- D) None of the above

10. is very useful in situation when data have to stored and then retrieved in reverse order.

- A) Stack
- B) Queue
- C) List
- D) Link list

11. Which of the following is not the type of queue?

- A) Ordinary queue
- B) Single ended queue
- C) Circular queue
- D) Priority queue

12. The property of binary tree is

- A) The first subset is called left subtree
- B) The second subtree is called right subtree
- C) The root cannot contain NULL
- D) The right subtree can be empty

13. State true or false.

- i) The degree of root node is always zero.
- ii) Nodes that are not root and not leaf are called as internal nodes.

- A) True, True
- B) True, False
- C) False, True
- D) False, False

14. Any node is the path from the root to the node is called

- A) Successor node
- B) Ancestor node
- C) Internal node
- D) None of the above

15. State true of false.

- i) A node is a parent if it has successor nodes.
- ii) A node is child node if out degree is one.

- A) True, True

Solved Multiple Choice Questions of Data Structure

B) True, False

C) False, True

D) False, False

16. is not an operation performed on linear list

a) Insertion b) Deletion c) Retrieval d) Traversal

A) only a,b and c

B) only a and b

C) All of the above

D) None of the above

17. Which is/are the application(s) of stack

A) Function calls

B) Large number Arithmetic

C) Evaluation of arithmetic expressions

D) All of the above

18. A is an acyclic digraph, which has only one node with indegree 0, and other nodes have indegree 1.

A) Directed tree

B) Undirected tree

C) Dis-joint tree

D) Direction oriented tree

19. Is a directed tree in which outdegree of each node is less than or equal to two.

A) Unary tree

B) Binary tree

C) Dinary tree

D) Both B and C

20. State true or false.

i) An empty tree is also a binary tree.

ii) In strictly binary tree, the outdegree of every node is either 0 or 2.

A) True, False

B) False, True

C) True, True

D) False, False

Answers

1. D) All of the above
2. A) AVL tree
3. C) Implementation level
4. A) Last in first out
5. C) True, True
6. D) None of above
7. D) None of the above
8. A) push, pop
9. B) Queue

Solved Multiple Choice Questions of Data Structure

10. A) Stack
11. B) Single ended queue
12. D) The right subtree can be empty
13. C) False, True
14. B) Ancestor node
15. B) True, False
16. D) None of the above
17. D) All of the above
18. A) Directed tree
19. B) Binary tree
20. C) True, True

Related Posts

- [Solved MCQ on Stack and Queue in Data Structure set-1](#)
- [Interview Questions on Stack and Queue in Data Structure set-2](#)
- [Solved MCQ on Tree and Graph in Data Structure set-1](#)
- [Objective Questions on Tree and Graph in Data Structure set-2](#)
- [Solved MCQ of Data Structure Set - 1](#)
- [Solved MCQ of Data Structure Set - 2](#)
- [Solved Objective questions of computer data structure set-3](#)
- [Solved MCQ of Data Structure and Algorithm set-4](#)
- [MCQ of Data Structure and Algorithm with Answer set-5](#)

Solved Multiple Choice Questions of Data Structure

Set-2

1. A directed graph is if there is a path from each vertex to every other vertex in the digraph.

- A) Weakly connected
- B) Strongly Connected
- C) Tightly Connected
- D) Linearly Connected

2. In the traversal we process all of a vertex's descendents before we move to an adjacent vertex.

- A) Depth First
- B) Breadth First
- C) With First
- D) Depth Limited

3. State True or False.

- i) Network is a graph that has weights or costs associated with it.
- ii) An undirected graph which contains no cycles is called a forest.
- iii) A graph is said to be complete if there is no edge between every pair of vertices.

- A) True, False, True
- B) True, True, False
- C) True, True, True
- D) False, True, True

4. Match the following.

- | | |
|---------------------|---|
| a) Completeness | i) How long does it take to find a solution |
| b) Time Complexity | ii) How much memory need to perform the search. |
| c) Space Complexity | iii) Is the strategy guaranteed to find the solution when there in one. |
- A) a-iii, b-ii, c-i
 - B) a-i, b-ii, c-iii
 - C) a-iii, b-i, c-ii
 - D) a-i, b-iii, c-ii

5. The number of comparisons done by sequential search is

- A) $(N/2)+1$
- B) $(N+1)/2$
- C) $(N-1)/2$
- D) $(N+2)/2$

6. In, search start at the beginning of the list and check every element in the list.

- A) Linear search
- B) Binary search
- C) Hash Search
- D) Binary Tree search

7. State True or False.

- i) Binary search is used for searching in a sorted array.

For more MCQs of Data Structure visit: <http://www.siteforinfotech.com/p/data-structure-mcq-sets.html>

Solved Multiple Choice Questions of Data Structure

ii) The time complexity of binary search is $O(\log n)$.

- A) True, False
- B) False, True
- C) False, False
- D) True, True

8. Which of the following is not the internal sort?

- A) Insertion Sort
- B) Bubble Sort
- C) Merge Sort
- D) Heap Sort

9. State True or False.

i) An undirected graph which contains no cycles is called forest.

ii) A graph is said to be complete if there is an edge between every pair of vertices.

- A) True, True
- B) False, True
- C) False, False
- D) True, False

10. A graph is said to be if the vertices can be split into two sets V1 and V2 such there are no edges between two vertices of V1 or two vertices of V2.

- A) Partite
- B) Bipartite
- C) Rooted
- D) Bisects

11. In a queue, the initial values of front pointer f and rear pointer r should be and respectively.

- A) 0 and 1
- B) 0 and -1
- C) -1 and 0
- D) 1 and 0

12. In a circular queue the value of r will be ..

- A) $r=r+1$
- B) $r=(r+1)\% [QUEUE_SIZE - 1]$
- C) $r=(r+1)\% QUEUE_SIZE$
- D) $r=(r-1)\% QUEUE_SIZE$

13. Which of the following statement is true?

i) Using singly linked lists and circular list, it is not possible to traverse the list backwards.

ii) To find the predecessor, it is required to traverse the list from the first node in case of singly linked list.

- A) i-only
- B) ii-only
- C) Both i and ii
- D) None of both

14. The advantage of is that they solve the problem of sequential storage representation. But disadvantage is that they are sequential lists.

Solved Multiple Choice Questions of Data Structure

- A) Lists
- B) Linked Lists
- C) Trees
- D) Queues

15. What will be the value of top, if there is a size of stack STACK_SIZE is 5

- A) 5
- B) 6
- C) 4
- D) None

16. is not the operation that can be performed on queue.

- A) Insertion
- B) Deletion
- C) Retrieval
- D) Traversal

17. There is an extra element at the head of the list called a

- A) Antinel
- B) Sentinel
- C) List header
- D) List head

18. A graph is a collection of nodes, called And line segments called arcs or that connect pair of nodes.

- A) vertices, edges
- B) edges, vertices
- C) vertices, paths
- D) graph node, edges

19. A is a graph that has weights of costs associated with its edges.

- A) Network
- B) Weighted graph
- C) Both A and B
- D) None A and B

20. In general, the binary search method needs no more than comparisons.

- A) $\lceil \log_2 n \rceil - 1$
- B) $\lceil \log n \rceil + 1$
- C) $\lceil \log_2 n \rceil$
- D) $\lceil \log_2 n \rceil + 1$

Solved Multiple Choice Questions of Data Structure

Answers

1. B) Strongly Connected
2. A) Depth First
3. B) True, True, False
4. C) a-iii, b-i, c-ii
5. B) $(N+1)/2$
6. A) Linear search
7. D) True, True
8. C) Merge Sort
9. A) True, True
10. B) Bipartite
11. B) 0 and -1
12. C) $r=(r+1)\% \text{ QUEUE_SIZE}$
13. C) Both i and ii
14. B) Linked Lists
15. C) 4
16. D) Traversal
17. B) Sentinel
18. A) vertices, edges
19. C) Both A and B
20. D) $\lceil \log_2 n \rceil + 1$

Related Posts

- [Solved MCQ on Stack and Queue in Data Structure set-1](#)
- [Interview Questions on Stack and Queue in Data Structure set-2](#)
- [Solved MCQ on Tree and Graph in Data Structure set-1](#)
- [Objective Questions on Tree and Graph in Data Structure set-2](#)
- [Solved MCQ of Data Structure Set - 1](#)
- [Solved MCQ of Data Structure Set - 2](#)
- [Solved Objective questions of computer data structure set-3](#)
- [Solved MCQ of Data Structure and Algorithm set-4](#)
- [MCQ of Data Structure and Algorithm with Answer set-5](#)

Solved Multiple Choice Questions of Data Structure

MCQ on List and Linked List

Set-1

- 1) Linked lists are best suited

 - A. for relatively permanent collections of data.
 - B. for the size of the structure and the data in the structure are constantly changing.
 - C. data structure
 - D. for none of above situation

- 2) The operation of processing each element in the list is known as

 - A. sorting
 - B. merging
 - C. inserting
 - D. traversal

- 3) The situation when in a linked list START=NULL is

 - A. Underflow
 - B. Overflow
 - C. Houseful
 - D. Saturated

- 4) Each node in singly linked list has fields.

 - A. 2
 - B. 3
 - C. 1
 - D. 4

- 5) Which of the following is two way lists?

 - A. Grounded header list
 - B. Circular header list
 - C. Linked list with header and trailer nodes
 - D. List traversed in two directions

- 6) Which is the pointer associated with the availability list?

 - A. FIRST
 - B. AVAIL
 - C. TOP
 - D. REAR

- 7) Value of first linked list index is

 - A. 0
 - B. 1

Solved Multiple Choice Questions of Data Structure

- C. -1
- D. 2

8) In linked lists there are no NULL links in

- A. single linked list
- B. linear doubly linked list
- C. circular linked list
- D. linked list

9) Each node in a linked list must contain at least

- A. Three fields
- B. Two fields
- C. Four fields
- D. Five fields

10) The dummy header in linked list contain.....

- A. first record of the actual data
- B. last record of the actual data
- C. pointer to the last record of the actual data
- D. middle record of the actual data

11) In a linked list the field contains the address of next element in the list.

- A. Link field
- B. Next element field
- C. Start field
- D. Info field

12) LLINK is the pointer pointing to the ...

- A. successor node
- B. predecessor node
- C. head node
- D. last node

13) refers to a linear collection of data items.

- A. List
- B. Tree
- C. Graph
- D. Edge

14) A run list is.....

- A. small batches of records from a file
- B. number of elements having same value
- C. number of records

Solved Multiple Choice Questions of Data Structure

D. number of files in external storage

15) A indicates the end of the list.

- A. Guard
- B. Sentinel
- C. End pointer
- D. Last pointer

16) A is a linear list in which insertions and deletions are made to from either end of the structure.

- A. circular queue
- B. random of queue
- C. priority
- D. dequeue

17) Indexing the..... element in the list is not possible in linked lists.

- A. middle
- B. first
- C. last
- D. anywhere in between

18) A linear list in which the pointer points only to the successive node is.....

- A. singly linked list
- B. circular linked list
- C. doubly linked list
- D. none of the above

19) may take place only when there is some minimum amount (or) no space left in free storage list.

- A. Memory management
- B. Garbage collection
- C. Recycle bin
- D. Memory management

20) A linear list in which the last node points to the first node is

- A. singly linked list
- B. circular linked list
- C. doubly linked list
- D. none of the above

Solved Multiple Choice Questions of Data Structure

Answers

- 1) B. for the size of the structure and the data in the structure are constantly changing.
- 2) D. traversal
- 3) A. Underflow
- 4) A. 2
- 5) D. List traversed in two directions
- 6) B. AVAIL
- 7) A. 0
- 8) C. circular linked list
- 9) B. Two fields
- 10) A. first record of the actual data
- 11) A. Link field
- 12) B. predecessor node
- 13) A. List
- 14) A. small batches of records from a file
- 15) B. Sentinel
- 16) D. dequeue
- 17) A. middle
- 18) A. singly linked list
- 19) B. Garbage collection
- 20) B. circular linked list

Related Posts

- [Solved MCQ on Stack and Queue in Data Structure set-1](#)
- [Interview Questions on Stack and Queue in Data Structure set-2](#)
- [Solved MCQ on Tree and Graph in Data Structure set-1](#)
- [Objective Questions on Tree and Graph in Data Structure set-2](#)
- [Solved MCQ of Data Structure Set - 1](#)
- [Solved MCQ of Data Structure Set - 2](#)
- [Solved Objective questions of computer data structure set-3](#)
- [Solved MCQ of Data Structure and Algorithm set-4](#)
- [MCQ of Data Structure and Algorithm with Answer set-5](#)

Solved Multiple Choice Questions of Data Structure

Set-2

1) To insert a new node in linked list free node will be available in.....

- A. Available list
- B. Avail list
- C. Free node list
- D. Memory space list

2) A singly linked list is also called as.....

- A. linked list
- B. one way chain
- C. two way chain
- D. right link

3) A list is a header list where the node points back to the header node.

- A. Circular header
- B. Grounded header
- C. Two way header
- D. One way header

4) A doubly linked list has pointers with each node.

- A. 0
- B. 1
- C. 2
- D. 3

5) Header linked lists are frequently used for maintaining..... in memory.

- A. Polynomials
- B. Binomial
- C. Trinomial
- D. Quadratic equation

6) The pointer that points to the first node in the list is.....

- A. FIRST
- B. AVAIL
- C. TOP
- D. REAR

7) Two-way list may be maintained in memory by means of.....

- A. Queues

For more MCQs of Data Structure visit: <http://www.siteforinfotech.com/p/data-structure-mcq-sets.html>

Solved Multiple Choice Questions of Data Structure

- B. Linear arrays
- C. Non linear arrays
- D. Stacks

8) A doubly linked list is also called as.....

- A. linked list
- B. one way chain
- C. two way chain
- D. right link

9) The list that requires two pointer variables FIRST and LAST is called.....

- A. Circular list
- B. Header list
- C. One way list
- D. Two way list

10) If the availability list is null, then the condition is said to be.....

- A. nil block
- B. availability list underflow
- C. availability list overflow
- D. memory loss

11) The list which has its own pointer is called.....

- A. pointer list
- B. self pointer
- C. free pool
- D. own pointer

12) Which of the following is two way lists?

- A. Grounded header list
- B. Circular header list
- C. Linked list with header and trailer nodes
- D. None of the above

13) A is a header list where the last node contains the null pointer.

- A. grounded header list
- B. bottom header list
- C. down header list
- D. dropped header list

14) RLINK is the pointer pointing to the...

- A. successor node
- B. predecessor node
- C. head node

Solved Multiple Choice Questions of Data Structure

D. last node

15) A is a header list where the last node points back to the header node.

- A. rounded header list
- B. circular header list
- C. common header list
- D. forward header list

16) In a linked list, insertion can be done as.....

- A. beginning
- B. end
- C. middle
- D. all of the above

17) In a two-way lists each node is divided intoparts.

- A. 1
- B. 2
- C. 3
- D. 4

18) The disadvantage in using a circular linked list is

- A. it is possible to get into infinite loop
- B. last node points to first node.
- C. time consuming
- D. requires more memory space.

19) Which of the following conditions checks available free space in avail list?

- A. Avail=NULL
- B. Null=Avail
- C. Avail=Max stack
- D. Avail=Top

20) A linear list in which each node has point to the predecessor and successors nodes is called

- A. singly linked list
- B. circular linked list
- C. doubly linked list
- D. linear linked list

Solved Multiple Choice Questions of Data Structure

Answers

- 1) B. Avail list
- 2) B. one way chain
- 3) A. Circular header
- 4) C. 2
- 5) A. Polynomials
- 6) A. FIRST
- 8) C. two way chain
- 9) D. Two way list
- 10) B. availability list underflow
- 11) C. free pool
- 12) D. None of the above
- 13) A. grounded header list
- 14) A. successor node
- 15) B. circular header list
- 16) D. all of the above
- 17) C. 3
- 18) A. it is possible to get into infinite loop
- 19) A. Avail=NULL
- 20) C. doubly linked list

Related Posts

- [Solved MCQ on Stack and Queue in Data Structure set-1](#)
- [Interview Questions on Stack and Queue in Data Structure set-2](#)
- [Solved MCQ on Tree and Graph in Data Structure set-1](#)
- [Objective Questions on Tree and Graph in Data Structure set-2](#)
- [Solved MCQ of Data Structure Set - 1](#)
- [Solved MCQ of Data Structure Set - 2](#)
- [Solved Objective questions of computer data structure set-3](#)
- [Solved MCQ of Data Structure and Algorithm set-4](#)
- [MCQ of Data Structure and Algorithm with Answer set-5](#)

Solved Multiple Choice Questions of Data Structure

MCQ on Searching, Merging and Sorting Methods

Set-1

1) Finding the location of a given item in a collection of items is called.....

- A. Discovering
- B. Finding
- C. Searching
- D. Mining

1) C. Searching

2) Which of the following is an external sorting?

- A. Insertion Sort
- B. Bubble Sort
- C. Merge Sort
- D. Tree Sort

2) C. Merge Sort

3) Very slow way of sorting is.....

- A. Insertion sort
- B. Heap sort
- C. Bubble sort
- D. Quick sort

3) A. Insertion sort

4) Which of the following is an internal sorting?

- A. Tape Sort
- B. 2-way Merge Sort
- C. Merge Sort
- D. Tree Sort

4) D. Tree Sort

5) Sorting a file F usually refers to sorting F with respect to a particular key called.....

- A. Basic key
- B. Primary key
- C. Starting key

Solved Multiple Choice Questions of Data Structure

D. Index key

5) B. Primary key

6) The time complexity of quick sort is.....

A. $O(n)$

B. $O(\log n)$

C. $O(n^2)$

D. $O(n \log n)$

6) D. $O(n \log n)$

7) Selection sort first finds the element in the list and puts it in the first position.

A. Middle element

B. Largest element

C. Last element

D. Smallest element

7) D. Smallest element

8) Quick sort is also known as.....

A. merge sort

B. tree sort

C. shell sort

D. partition and exchange sort

8) D. partition and exchange sort

9) The operation that combines the elements of A and B in a single sorted list C with $n=r+s$ elements is called....

A. Inserting

B. Mixing

C. Merging

D. Sharing

9) C. Merging

10) A tree sort is also known as sort.

A. quick

Solved Multiple Choice Questions of Data Structure

- B. shell
- C. heap
- D. selection

10) C. heap

11) sorting is good to use when alphabetizing large list of names.

- A. Merge
- B. Heap
- C. Radix
- D. Bubble

11) C. Radix

12) The easiest sorting is.....

- A. quick sort
- B. shell sort
- C. heap sort
- D. selection sort

12) D. selection sort

13) Which of the following sorting algorithm is of divide and conquer type?

- A. Bubble sort
- B. Insertion sort
- C. Quick sort
- D. Merge sort

13) C. Quick sort

14) Merging k sorted tables into a single sorted table is called.....

- A. k way merging
- B. k th merge
- C. k+1 merge
- D. k-1 merge

14) A. k way merging

Solved Multiple Choice Questions of Data Structure

15) The function used to modify the way of sorting the keys of records is called.....

- A. Indexing function
- B. Hash function
- C. Addressing function
- D. All of the above

15) B. Hash function

16) If the number of record to be sorted large and the key is short, then sorting can be efficient.

- A. Merge
- B. Heap
- C. Radix
- D. Bubble

16) C. Radix

17) The total number of comparisons in a bubble sort is

- A. $O(n \log n)$
- B. $O(2n)$
- C. $O(n^2)$
- D. $O(n)$

17) A. $O(n \log n)$

18) If the number of record to be sorted large and the key is long, then sorting can be efficient.

- A. Merge
- B. Heap
- C. Quick
- D. Bubble

18) C. Quick

19) The time complexity of heap sort is

- A. $O(n)$
- B. $O(\log n)$
- C. $O(n^2)$
- D. $O(n \log n)$

19) D. $O(n \log n)$

Solved Multiple Choice Questions of Data Structure

20) The complexity of selection sort is

- A. $O(n)$
- B. $O(n^2)$
- C. $O(n \log n)$
- D. $O(\log n)$

20) B. $O(n^2)$

Related Posts

- [Solved MCQ on Stack and Queue in Data Structure set-1](#)
- [Interview Questions on Stack and Queue in Data Structure set-2](#)
- [Solved MCQ on Tree and Graph in Data Structure set-1](#)
- [Objective Questions on Tree and Graph in Data Structure set-2](#)
- [Solved MCQ of Data Structure Set - 1](#)
- [Solved MCQ of Data Structure Set - 2](#)
- [Solved Objective questions of computer data structure set-3](#)
- [Solved MCQ of Data Structure and Algorithm set-4](#)

Solved Multiple Choice Questions of Data Structure

Set-2

1) The worst case occurs in linear search algorithm when.....

- A. Item is somewhere in the middle of the array
- B. Item is not in the array at all
- C. Item is the last element in the array
- D. Item is the last element in the array or item is not there at all

1) D. Item is the last element in the array or item is not there at all

2) If the number of records to be sorted is small, then sorting can be efficient.

- A. Merge
- B. Heap
- C. Selection
- D. Bubble

2) C. Selection

3) The complexity of sorting algorithm measures the as a function of the number n of items to be sorter.

- A. average time
- B. running time
- C. average-case complexity
- D. case-complexity

3) B. running time

4) Which of the following is not a limitation of binary search algorithm?

- A. must use a sorted array
- B. requirement of sorted array is expensive when a lot of insertion and deletions are needed
- C. there must be a mechanism to access middle element directly
- D. binary search algorithm is not efficient when the data elements more than 1500.

4) D. binary search algorithm is not efficient when the data elements more than 1500.

5) The Average case occurs in linear search algorithm.....

- A. when item is somewhere in the middle of the array
- B. when item is not the array at all

For more MCQs of Data Structure visit: <http://www.siteforinfotech.com/p/data-structure-mcq-sets.html>

Solved Multiple Choice Questions of Data Structure

- C. when item is the last element in the array
- D. Item is the last element in the array or item is not there at all

5) A. when item is somewhere in the middle of the array

6) Binary search algorithm cannot be applied to...

- A. sorted linked list
- B. sorted binary trees
- C. sorted linear array
- D. pointer array

6) D. pointer array

7) Complexity of linear search algorithm is.....

- A. $O(n)$
- B. $O(\log n)$
- C. $O(n^2)$
- D. $O(n \log n)$

7) A. $O(n)$

8) Sorting algorithm can be characterized as.....

- A. Simple algorithm which require the order of n^2 comparisons to sort n items.
- B. Sophisticated algorithms that require the $O(n \log^2 n)$ comparisons to sort items.
- C. Both of the above
- D. None of the above

8) C. Both of the above

9) The complexity of bubble sort algorithm is.....

- A. $O(n)$
- B. $O(\log n)$
- C. $O(n^2)$
- D. $O(n \log n)$

9) C. $O(n^2)$

10) State True or False for internal sorting algorithms.

- i) Internal sorting are applied when the entire collection if data to be sorted is small enough that the sorting can take place within main memory.

Solved Multiple Choice Questions of Data Structure

ii) The time required to read or write is considered to be significant in evaluating the performance of internal sorting.

- A. i-True, ii-True
- B. i-True, ii-False
- C. i-False, ii-True
- D. i-False, ii-False

10) B. i-True, ii-False

11) The complexity of merge sort algorithm is.....

- A. $O(n)$
- B. $O(\log n)$
- C. $O(n^2)$
- D. $O(n \log n)$

11) D. $O(n \log n)$

12)order is the best possible for array sorting algorithm which sorts n item.

- A. $O(n \log n)$
- B. $O(n^2)$
- C. $O(n + \log n)$
- D. $O(\log n)$

12) C. $O(n + \log n)$

13) is the method used by card sorter?

- A. Radix sort
- B. Insertion
- C. Heap
- D. Quick

13) A. Radix sort

14)..... Sorting algorithm is frequently used when n is small where n is total number of elements.

- A. Heap
- B. Insertion
- C. Bubble
- D. Quick

Solved Multiple Choice Questions of Data Structure

14) B. Insertion

15) Which of the following is not the required condition for binary search algorithm?

- A. The list must be sorted
- B. There should be the direct access to the middle element in any sub list
- C. There must be mechanism to delete and/or insert elements in list.
- D. Number values should only be present

15) C. There must be mechanism to delete and/or insert elements in list.

16) Partition and exchange sort is.....

- A. quick sort
- B. tree sort
- C. heap sort
- D. bubble sort

16) A. quick sort

www.siteforinfotech.com

Solved Multiple Choice Questions of Data Structure

Solved MCQ on Stack and Queue

Set-1

- 1) form of access is used to add and remove nodes from a queue.
- A. LIFO, Last In First Out
 - B. FIFO, First In First Out
 - C. Both a and b
 - D. None of these

1) B. FIFO, First In First Out

- 2) form of access is used to add remove nodes from a stack.
- A. LIFO
 - B. FIFO
 - C. Both A and B
 - D. None of these

2) A. LIFO

- 3) New nodes are added to the of the queue.
- A. Front
 - B. Back
 - C. Middle
 - D. Both A and B

3) B. Back

- 4) What happens when you push a new node onto a stack?
- A. The new node is placed at the front of the linked list
 - B. The new node is placed at the back of the linked list
 - C. The new node is placed at the middle of the linked list
 - D. No Changes happens

4) A. The new node is placed at the front of the linked list

- 5) Which of the following name does not relate to stacks?
- A. FIFO lists
 - B. LIFO lists
 - C. Piles
 - D. Push down lists

Solved Multiple Choice Questions of Data Structure

5) A. FIFO lists

6) The term push and pop is related to

- A. Array
- B. Lists
- C. Stacks
- D. Trees

6) C. Stacks

7) The elements are removal from a stack in order.

- A. Reverse
- B. Hierarchical
- C. Alternative
- D. Sequential

7) A. Reverse

8) is the term used to insert an element into stack?

- A. Push
- B. Pull
- C. Pop
- D. Pump

8) A. Push

9) is the term used to delete an element from the stack?

- A. Push
- B. Pull
- C. Pop
- D. Pump

9) C. Pop

10) A pointer variable which contains the location at the top element of the stack is called.....

- A. Top
- B. Last
- C. Final
- D. End

10) A. Top

Solved Multiple Choice Questions of Data Structure

Set-2

1) Before inserting into stack one must check the condition.....

- A. Overflow
- B. Underflow
- C. Maximum elements
- D. Existing elements

1) A. Overflow

2) Before deletion condition into stack has to be checked.

- A. Overflow
- B. Underflow
- C. Maximum elements
- D. Existing elements

2) B. Underflow

3) When does Top value of stack change in insertion process?

- A. Before insertion
- B. After insertion
- C. At the time of insertion
- D. While checking overflow

3) A. Before insertion

4) Deletion in the linked stack takes place by deleting.....

- A. Node pointed by the start process.
- B. End of the list
- C. Beginning of the list
- D. Middle of the list

4) A. Node pointed by the start process

5) The condition..... Indicate the queue is empty.

- A. Front=NULL
- B. Null=Front
- C. Front=Rear
- D. Rear=NULL

5) A. Front=NULL

Solved Multiple Choice Questions of Data Structure

6) The value of REAR is increased by 1 when.....

- A. An element is deleted in a queue
- B. An element is traversed in a queue
- C. An element is added in a queue
- D. An element is merged in a queue

6) C. An element is added in a queue

7) The term dequeue is the contraction of the name.....

- A. Double ended queue
- B. Double side queue
- C. Double headed queue
- D. Double address queue

7) A. Double ended queue

8) is a collection of elements such that each element has been assigned a processing priority.

- A. Priority queue
- B. Procedure queue
- C. Main queue
- D. Interrupt queue

8) A. Priority queue

9) Link fields hold pointers to the element in the linked representation of stack.

- A. Neighboring
- B. Last
- C. First
- D. Middle

9) A. Neighboring

10) Reversing a great deal of space for each stack in memory will.....

- A. Decrease the numbers of times overflow may occur
- B. Increase the numbers of times overflow may occur
- C. Increase the number of times underflow may occur
- D. Increase the number of times underflow may occur.

10) A. Decrease the numbers of times overflow may occur

Solved Multiple Choice Questions of Data Structure

Solved MCQ on Tree and Graph

Set-1

1) The operation of processing each element in the list is known as.....

- A. sorting
- B. merging
- C. inserting
- D. traversal

1) D. traversal

2) Binary trees with threads are called as.....

- A. Threaded trees
- B. Pointer trees
- C. Special trees
- D. Special pointer trees

2) A. Threaded trees

3) In Binary trees nodes with no successor are called.....

- A. End nodes
- B. Terminal nodes
- C. Final nodes
- D. Last nodes

3) B. Terminal nodes

4) Trees are said if they are similar and have same contents at corresponding nodes.

- A. Duplicate
- B. Carbon copy
- C. Replica
- D. Copies

4) D. Copies

5) Every node N in a binary tree T except the root has a unique parent called the of N.

- A. Antecedents
- B. Predecessor
- C. Forerunner
- D. Precursor

Solved Multiple Choice Questions of Data Structure

5) B. Predecessor

6) Sequential representation of binary tree uses.....

- A. Array with pointers
- B. Single linear array
- C. Two dimensional arrays
- D. Three dimensional arrays

6) A. Array with pointers

7) TREE[1]=NULL indicates tree is

- A. Overflow
- B. Underflow
- C. Empty
- D. Full

7) C. Empty

8) Linked representation of binary tree needs parallel arrays.

- A. 4
- B. 2
- C. 3
- D. 5

8) C. 3

9) In a 2-tree, nodes with 0 children are called.....

- A. Exterior node
- B. Outside node
- C. Outer node
- D. External node

9) D. External node

10) In a extended-binary tree nodes with 2 children are called.....

- A. Interior node
- B. Domestic node
- C. Internal node
- D. Inner node

10) C. Internal node

Solved Multiple Choice Questions of Data Structure

Set-2

1) While converting binary tree into extended binary tree, all the original nodes in binary tree are.....

- A. Internal nodes on extended tree
- B. External nodes on extended tree
- C. Vanished on extended tree
- D. Intermediate nodes on extended tree

1) A. Internal nodes on extended tree

2) In a binary tree, certain null entries are replaced by special pointers which point to nodes higher in the tree for efficiency. These special pointers are called.....

- A. Leaf
- B. Branch
- C. Path
- D. Thread

2) D. Thread

3) The in order traversal of tree will yield a sorted listing of elements of tree in....

- A. Binary trees
- B. Binary search trees
- C. Merging
- D. AVL Trees

3) B. Binary search trees

4) A binary tree whose every node has either zero or two children is called.....

- A. Complete binary tree
- B. Binary Search tree
- C. Extended binary tree
- D. E2 tree

4) C. Extended binary tree

5) The post order traversal of a binary tree is DEBFCA. Find out the pre order Traversal.

- A. ABFCDE
- B. ADBFEC

For more MCQs of Data Structure visit: <http://www.siteforinfotech.com/p/data-structure-mcq-sets.html>

Solved Multiple Choice Questions of Data Structure

C. ABDECF

D. ABDCEF

5) C. ABDECF

6) In order traversing a tree resulted E A C K F H D B G; the preorder traversal would return.

A. FAEKCD BHG

B. FAEKCDHGB

C. EAFKHDCBG

D. FEAKDCHBG

6) B. FAEKCDHGB

7) In linked representation of Binary trees LEFT[k] contains the of at the node N, where k is the location.

A. Data

B. Location and left child

C. Right child address

D. Null value

7) A. Data

8) Three standards ways of traversing a binary tree T with root R

A. Prefix, infix, postfix

B. Pre-process, in-process, post-process

C. Pre-traversal, in-traversal, post-traversal

D. Pre-order, in-order, post-order

8) D. Pre-order, in-order, post-order

9) Which indicates pre-order traversal?

A. Left sub-tree, Right sub-tree and root

B. Right sub-tree, Left sub-tree and root

C. Root, Left sub-tree, Right sub-tree

D. Right sub-tree, root, Left sub-tree

9) C. Root, Left sub-tree, Right sub-tree

10) A terminal node in a binary tree is called

A. Root

B. Leaf

Solved Multiple Choice Questions of Data Structure

- C. Child
- D. Branch

10) B. Leaf

Related Posts

- [Solved MCQ on Stack and Queue in Data Structure set-1](#)
- [Interview Questions on Stack and Queue in Data Structure set-2](#)
- [Solved MCQ on Tree and Graph in Data Structure set-1](#)
- [Objective Questions on Tree and Graph in Data Structure set-2](#)
- [Solved MCQ of Data Structure Set - 1](#)
- [Solved MCQ of Data Structure Set - 2](#)
- [Solved Objective questions of computer data structure set-3](#)
- [Solved MCQ of Data Structure and Algorithm set-4](#)
- [MCQ of Data Structure and Algorithm with Answer set-5](#)

Solved Multiple Choice Questions of Data Structure

Set-3

1) Which indicates in-order traversal?

- A. Left sub-tree, Right sub-tree and root
- B. Right sub-tree, Left sub-tree and root
- C. Root, Left sub-tree, Right sub-tree
- D. Right sub-tree, root, Left sub-tree

1) D. Right sub-tree, root, Left sub-tree

2) The line drawn from a node N of tree T to a successor is called

- A. Path
- B. Edge
- C. Arrow
- D. Route

2) B. Edge

3) In a binary tree a sequence of consecutive edges is called

- A. Rotate
- B. Connecting lines
- C. Two-way
- D. Path

3) D. Path

4) Which of the following indicates post-order traversal?

- A. Left sub-tree, Right sub-tree and root
- B. Right sub-tree, Left sub-tree and root
- C. Root, Left sub-tree, Right sub-tree
- D. Right sub-tree, root, Left sub-tree

4) A. Left sub-tree, Right sub-tree and root

5) The root R of the binary tree is assigned a level number of

- A. 1
- B. 0
- C. -1
- D. Null

Solved Multiple Choice Questions of Data Structure

5) B. 0

6) If node N is a terminal node in a binary tree then its

- A. Right tree is empty
- B. Left tree is empty
- C. Both left & right sub trees are empty
- D. Root node is empty

6) C. Both left & right sub trees are empty

7) In threaded binary tree points to higher nodes in tree.

- A. Info
- B. Root
- C. Threads
- D. Child

7) C. Threads

8) A graph is said to be if there is a path between any two of its nodes

- A. Connected
- B. Coupled
- C. Attached
- D. Allied

8) A. Connected

9) A graph is said to be if every node u in G is adjacent to every other node v in G .

- A. Absolute
- B. Entire
- C. Inclusive
- D. Complete

9) D. Complete

10) A graph is said to be if its edges are assigned data.

- A. Tagged
- B. Marked
- C. Lebeled
- D. Sticked

Solved Multiple Choice Questions of Data Structure

10) C. Lebeled

11) Other name for directed graph is

- A. Direct graph
- B. Digraph
- C. Dir-graph
- D. Digraph

11) D. Digraph

12) Graph G is if for any pair u, v of nodes in G there is a path from u to v or path from v to u.

- A. Leterally connected
- B. Widely Connected
- C. Unliterally connected
- D. Literally connected

12) C. Unliterally connected

13) A connected graph T without any cycles is called

- A. free graph
- B. no cycle graph
- C. non cycle graph
- D. circular graph

13) A. free graph

14) A connected graph T without any cycles is called a

- A. A tree graph
- B. Free tree
- C. A tree d
- D. All of the above

14) D. All of the above

15) In a graph if $E=(u,v)$ means

- A. u is adjacent to v but v is not adjacent to u
- B. e begins at u and ends at v
- C. u is processor and v is successor
- D. both b and c

15) D. both b and c

Solved Multiple Choice Questions of Data Structure

16) In a graph if $e=[u,v]$, Then u and v are called

- A. End points of e
- B. Adjacent nodes
- C. Neighbours
- D. All of the above

16) D. All of the above

Related Posts

- [Solved MCQ on Stack and Queue in Data Structure set-1](#)
- [Interview Questions on Stack and Queue in Data Structure set-2](#)
- [Solved MCQ on Tree and Graph in Data Structure set-1](#)
- [Objective Questions on Tree and Graph in Data Structure set-2](#)
- [Solved MCQ of Data Structure Set - 1](#)
- [Solved MCQ of Data Structure Set - 2](#)
- [Solved Objective questions of computer data structure set-3](#)
- [Solved MCQ of Data Structure and Algorithm set-4](#)