

DSF MCQ Question bank unit I and II

- 1) The queue in which the insertion takes place in the first position after of last element is a
A. priority B. dequeue C. circular D. linked
- 2) Before inserting into stack one must check the condition
A. Overflow B. Underflow C. Maximum elements D. Existing elements
- 3) The another name of dequeue is
A. divided queue B. distributed queue C. double ended queue D. design queue
- 4) Before deletion condition into stack has to be checked.
A. Overflow B. Underflow C. Maximum elements D. Existing elements
- 5) In dequeue, insertion and deletion takes place of
A. front, rear end B. only at rear end C. only at front end D. both the ends
- 6) 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
- 7) A queue in which insertion and deletion takes places from any position is called
A. circular queue B. random of queue C. priority D. dequeue
- 8) 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
- 9) Which of the following name does not relate to stacks?
A. FIFO lists B. LIFO list C. piles D. push-down lists
- 10) The condition indicate the queue is empty.
A. Front=Null B. Null=Front C. Front=Rear D. Rear=Null
- 11) Which of the following is not the type of queue?
A. Ordinary queue B. Special queue C. Priority queue D. Circular queue
- 12) 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
- 13) The operations that can be done in a circular queue is/are
A. Insert from the front end B. Delete from front end C. Display queue contents D. All of the above
- 14) The term dequeue is the contraction of the name
A. Double ended queue B. Double sided queue C. Double headed queue D. Double address queue
- 15) The various operations that can be performed on stacks is/are
A. Insert an item into the stack B. Delete an item from the stack C. Display the contents of the stack
- 16) Stack follows the strategy of
A. LIFO B. FIFO C. LRU D. RANDOM
- 17) is the term used to delete an element from the stack.
A. Push B. Pull C. Pop D. Pump
- 18) Deletion operation is done using in a queue.
A. front B. rear C. top D. list

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

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

20) Which of the following is an application of stack?

A. finding factorial B. tower of Hanoi C. infix to postfix D. all of the above

answers:

- 1) B. FIFO, First In First Out 2) A. INFO fields 3) A. LIFO 4) C. Start pointer 5) B. Back
6) B. Bottom of the stack 7) A. The new node is placed at the front of the linked list 8) A. FIFO
9) A. FIFO lists 10) B. pop 11) C. Stacks 12) C. TOP 13) A. Reverse 14) B. push 15) A. Push
16) A. LIFO 17) C. Pop 18) A. front 19) A. Top 20) D. all of the above

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

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

2. 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

3. 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

4. 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

5. State true or 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 B) True, False C) False, True D) False, False

6. 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

7. 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

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

A) Directed tree B) Undirected tree C) Dis-joint tree D) Direction oriented tree

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

A) Unary tree B) Binary tree C) Trinary tree D) Both B and C

10. State true or false.

i) An empty tree is also a binary tree.

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

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

11. Which of the following data structures are indexed structures?

A. Linear arrays B. Linked lists C. Queue D. Stack

12. Which of the following data structure store the homogeneous data elements?

A. Arrays B. Records C. Pointers D. Lists

13. When new data are to be inserted into a data structure, but there is not available space; this situation is usually called ..

A. Underflow B. overflow C. houseful D. saturated

14. A data structure where elements can be added or removed at either end but not in the middle is called ...

A. linked lists B. stacks C. queues D. dequeue

15. Operations on a data structure may be

A. creation B. destruction C. selection D. all of the above

16. The way in which the data item or items are logically related defines

A. storage structure B. data structure C. data relationship D. data operation

17. Which of the following are the operations applicable on primitive data structures?

A. create B. destroy C. update D. all of the above

18. The use of pointers to refer elements of a data structure in which elements are logically adjacent is

A. pointers B. linked allocation C. stack D. queue

19. Arrays are best data structures

A. for relatively permanent collections of data

B. for the size of the structure and the data in the structure are constantly changing

C. for both of above situation

D. for non of above situation

20. Which of the following statement is false?

A. Arrays are dense lists and static data structure.

B. Data elements in linked list need not be stored in adjacent space in memory

C. Pointers store the next data element of a list.

D. Linked lists are collection of the nodes that contain information part and next pointer.

Answers:

1. B) Single ended queue 2. D) The right empty 3. C) False, True 4. B) Ancestor node

5. B) True, False 6. D) None of the above 7. D) All of the above 8. A) Directed tree 9. B) Binary tree

10. C) True, True 11. A. Linear arrays 12. B. Records 13. B. overflow 14. D. dequeue 15. D. all of the above

16. B. data structure 17. D. all of the above 18. B. linked allocation 20. C. Pointers store the next data element of a list.