TCET 2026 Test Series:

Questions:

Data Structures - Stack, Queue

Q.1) What is the primary characteristic of a stack?

[A] FIFO (First In First Out)

[B] LIFO (Last In First Out)

[C] Random Access

[D] Sequential Access

Q.2) What operation adds an element to the top of a stack?

[A] enqueue

[B] pop

[C] push

[D] delete

Q.3) What operation removes the top element from a stack?

[A] insert

[B] pop

[C] dequeue

[D] append

Q.4) What does the peek operation in a stack do?

[A] Removes the top element

[B] Returns the top element without removing it

[C] Adds an element to the stack

[D] Clears the stack

Q.5) Which data structure follows the First In First Out (FIFO) principle?

[A] Stack

[B] Queue

[C] Linked List

[D] Tree

Q.6) What operation adds an element to the back of a queue?

[A] enqueue

[B] pop

[C] push

[D] delete

Q.7) What operation removes an element from the front of a queue?

[A] push

[B] insert

[C] dequeue

[D] pop

Q.8) In a stack, which element is removed first?

[A] The bottom element

[B] The middle element

[C] The top element

[D] Random element

Q.9) In a queue, which element is removed first?

[A] The newest element

[B] The oldest element

[C] The largest element

[D] The smallest element

Q.10) What is the time complexity of the push operation in a stack?

[A] O(1)

[B] O(n)

[C] O(log n)

[D] O(n^2)

Q.11) What is the time complexity of the enqueue operation in a queue?

[A] O(n)

[B] O(log n)

[C] O(n^2)

[D] O(1)

Q.12) Which data structure is used in function call management?

[A] Queue

[B] Stack

[C] Array

[D] Graph

Q.13) What type of queue allows insertion and deletion at both ends?

[A] Circular Queue

[B] Priority Queue

[C] Double-ended Queue (Deque)

[D] Simple Queue

Q.14) What is a circular queue?

[A] A queue with unlimited size

[B] A queue where the rear wraps around to the front

[C] A stack with two pointers

[D] A queue with one element

Q.15) What is the maximum number of elements that can be stored in a circular queue of size n?

[A] n

[B] n-1

[C] n+1

[D] 2n

Q.16) Which operation is not possible in a stack?

[A] push

[B] pop

[C] dequeue

[D] peek

Q.17) Which data structure is best suited for undo operations in software?

[A] Queue

[B] Stack

[C] Linked List

[D] Array

Q.18) How is a queue typically implemented?

[A] Using arrays

[B] Using linked lists

[C] Using stacks

[D] Both C and B

Q.19) What is the initial value of front in an empty queue?

[A] 0

[B] -1

[C] 1

[D] None

Q.20) What happens when you pop an element from an empty stack?

[A] Stack Overflow

[B] Stack Underflow

[C] Queue Overflow

[D] Queue Underflow

Q.21) What happens when you enqueue an element into a full queue?

[A] Queue Overflow

[B] Queue Underflow

[C] Stack Overflow

[D] Stack Underflow

Q.22) Which condition indicates that a queue is empty?

[A] front == -1

[B] rear == front

[C] front == rear + 1

[D] rear == 0

Q.23) What is a priority queue?

[A] A queue with two fronts

[B] A queue where elements are removed based on priority

[C] A circular queue

[D] A queue with two rears

Q.24) What type of data structure is a stack?

[A] Non-linear

[B] Linear

[C] Hierarchical

[D] Graphical

Q.25) What type of data structure is a queue?

[A] Linear

[B] Non-linear

[C] Tree

[D] Graph

Q.26) What is the rear pointer in a queue used for?

[A] Removing elements

[B] Adding elements

[C] Accessing the middle element

[D] Sorting the queue

Q.27) In a circular queue, how is the rear pointer updated after an enqueue?

[A] rear = rear + 1

[B] rear = (rear + 1) % size

[C] rear = rear - 1

[D] rear = (rear - 1) % size

Q.28) Which condition indicates that a stack is full?

[A] top == -1

[B] top == size - 1

[C] top == size

[D] top == 0

Q.29) What is the best use case for a stack?

[A] Task scheduling

[B] Undo operations

[C] Queue management

[D] File handling

Q.30) What is the best use case for a queue?

[A] Depth-first traversal

[B] Function call management

[C] Breadth-first traversal

[D] Undo operations

Q.31) How can a stack be implemented?

[A] Using an array

[B] Using a linked list

[C] Using a queue

[D] Both b and c

Q.32) How can a queue be implemented?

[A] Using an array

[B] Using a linked list

[C] Using two stacks

[D] All of the above

Q.33) What is a deque (double-ended queue)?

[A] A queue with two fronts

[B] A queue with two ends for insertion and deletion

[C] A stack with two tops

[D] A queue with a circular structure

Q.34) What is the function of the front pointer in a queue?

[A] Points to the last element

[B] Points to the first element

[C] Points to the middle element

[D] Points to the top element

Q.35) Which data structure can be used to check balanced parentheses in an expression?

[A] Queue

[B] Stack

[C] Linked List

[D] Array

Q.36) In which scenario is a queue used?

[A] Undo operations

[B] Function calls

[C] Task scheduling

[D] Depth-first traversal

Q.37) Which of the following operations is not allowed in a queue?

[A] Enqueue at the front

[B] Dequeue at the front

[C] Enqueue at the rear

[D] Peek at the front

Q.38) What is the main disadvantage of an array-based implementation of a queue?

[A] Limited size

[B] Dynamic size

[C] Fast access

[D] Easy implementation

Q.39) What happens when rear exceeds the maximum size in a circular queue?

[A] The queue overflows

[B] The queue resets to the front

[C] The queue stops working

[D] The queue reverses

Q.40) Which data structure is used in the Depth-First Search (DFS) algorithm?

[A] Queue

[B] Stack

[C] Linked List

[D] Heap

Q.41) Which data structure is used in the Breadth-First Search (BFS) algorithm?

[A] Stack

[B] Heap

[C] Queue

[D] Graph

Q.42) What is the condition for stack underflow?

[A] top == -1

[B] top == size - 1

[C] top == 0

[D] top == size

Q.43) Which operation is performed on a stack when removing an element?

[A] push

[B] pop

[C] enqueue

[D] insert

Q.44) Which type of queue allows elements to be processed based on priority?

[A] Circular Queue

[B] Double-Ended Queue (Deque)

[C] Priority Queue

[D] Simple Queue

Q.45) What is a bounded queue?

[A] A queue with fixed size

[B] A queue with unlimited size

[C] A circular queue

[D] A priority queue

Q.46) In which scenario would you use a stack?

[A] Scheduling tasks

[B] Handling function calls

[C] Managing printer jobs

[D] Processing customer requests

Q.47) In which scenario would you use a queue?

[A] Undo operations

[B] Function call management

[C] Task scheduling

[D] Reversing a string

Q.48) How do you check if a stack is empty?

[A] top == size

[B] top == -1

[C] top == 0

[D] top == size - 1

Q.49) What is the purpose of a linked list-based implementation of a stack?

[A] Fixed size

[B] Dynamic size

[C] Circular structure

[D] Static structure

Q.50) What is the primary use case of a deque (double-ended queue)?

[A] Only adding elements at the rear

[B] Only removing elements from the front

[C] Adding and removing elements from both ends

[D] Sorting elements in order

TCET 2026 Test Series:

Answers:

Data Structures - Stack, Queue

Q.1)B   Q.2)C   Q.3)B   Q.4)B   Q.5)B   Q.6)A   Q.7)C   Q.8)C   Q.9)B   Q.10)A   Q.11)D   Q.12)B   Q.13)C   Q.14)B   Q.15)B

Q.16)C   Q.17)B   Q.18)D   Q.19)B   Q.20)B   Q.21)A   Q.22)A   Q.23)B   Q.24)B   Q.25)A   Q.26)B   Q.27)B   Q.28)B   Q.29)B

Q.30)C   Q.31)D   Q.32)D   Q.33)B   Q.34)B   Q.35)B   Q.36)C   Q.37)A   Q.38)A   Q.39)B   Q.40)B   Q.41)C   Q.42)A   Q.43)B

Q.44)C   Q.45)A   Q.46)B   Q.47)C   Q.48)B   Q.49)B   Q.50)C

TCET 2026 Test Series:

Explanations:

Data Structures - Stack, Queue

Q.1) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.2) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.3) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.4) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.5) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.6) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.7) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.8) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.9) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.10) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.11) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.12) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.13) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.14) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.15) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.16) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.17) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.18) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.19) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.20) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.21) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.22) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.23) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.24) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.25) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.26) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.27) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.28) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.29) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.30) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.31) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.32) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.33) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.34) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.35) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.36) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.37) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.38) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.39) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.40) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.41) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.42) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.43) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.44) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.45) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.46) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.47) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.48) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.49) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.50) Explanation:

Multiple Choice Type Question: ** Explanation not Available **

TCET 2026 Test Series:

Answers And Explanations:

Data Structures - Stack, Queue

Q.1) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.2) C

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.3) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.4) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.5) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.6) A

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.7) C

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.8) C

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.9) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.10) A

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.11) D

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.12) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.13) C

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.14) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.15) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.16) C

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.17) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.18) D

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.19) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.20) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.21) A

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.22) A

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.23) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.24) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.25) A

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.26) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.27) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.28) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.29) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.30) C

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.31) D

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.32) D

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.33) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.34) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.35) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.36) C

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.37) A

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.38) A

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.39) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.40) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.41) C

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.42) A

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.43) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.44) C

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.45) A

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.46) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.47) C

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.48) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.49) B

Explanation:

Multiple Choice Type Question: ** Explanation not Available **

Q.50) C

Explanation:

Multiple Choice Type Question: ** Explanation not Available **