

Data Structure Quiz 1 (03-12-2023)

1. Which of the following uses FIFO method

Answers

1. Dequeue
2. Linear Queue
3. Circular Queue
4. Both B & C

2. _____ can be used to test a palindrome?

Answers

1. Stack
2. Heap
3. Tree
4. queue

3. If a user tries to remove an element from empty stack condition arises it is called _____.

Answers

1. POP
2. Underflow
3. Overflow
4. All of the above

4. Stack can be implemented using _____ and _____ ?

Answers

1. Array and Binary Tree
2. Linked List and Graph
3. Array and Linked List
4. Queue and Linked List

5. Find Infix Expression for the given postfix expression.

A B C D * - E / + F + G H / -

Answers

1. $A / ((B - C * D) + E) + F - G / H$
2. $A + ((B - C * D) / E) + F - G / H$
3. $A + ((B - C * E) / D) + F - G / H$
4. $A + ((B - C * D) / E) + F / G - H$

6. Real Time Application of Queue:

Answers

1. Car lined in Toll Gate.
2. Luggage Kept on conveyor belts in Airport.
3. People moving on an escalator. First step in will be the First step out.
4. All of the these

7. Suppose a circular queue is implemented with an array of n elements. Assume that the insertion and deletion operations are carried out using REAR and FRONT as array index variables, respectively. Initially, REAR = FRONT = -1. The conditions to detect queue full and empty are :

Answers

1. full: (REAR+1) == FRONT empty: REAR == FRONT
2. full: (REAR+ == n) empty: REAR == FRONT
3. full: REAR < FRONT empty: REAR == FRONT
4. full: (REAR+1) == FRONT empty: REAR == FRONT && REAR== -1

8. Traffic system uses -----

Answers

1. Linear Queue
2. Circular Queue
3. Priority Queue
4. DEQueue

9. The postfix form of the expression (A+ B)*(C*D- E)*F / G is?

Answers

1. AB+ CD*E - FG /**
2. AB + CD* E - F **G /
3. AB + CD* E - *F *G /
4. AB + CDE * - * F *G /

10. The following postfix expression is evaluated using a stack
823^/23* + 51* -

The top two elements of the stack after first * is evaluated

Answers

1. 6, 1
2. 5,7
3. 3.2
4. 1,5