

## PASSAGE

Infix, prefix, and postfix notations are three different but equivalent notations of writing algebraic expressions. In postfix notation, operators are placed after the operands, whereas in prefix notation, operators are placed before the operands. Postfix notations are evaluated using stacks. Every character of the postfix expression is scanned from left to right. If the character is an operand, it is pushed onto the stack. Else, if it is an operator, then the top two values are popped from the stack and the operator is applied on these values. The result is then pushed onto the stack.

Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

What would be the Prefix notation for the given equation?  $(a+(b/c)*(d^e)-f)$

## OPTIONS

-+a\*/^bcdef

-+a\*/bc^def

-+a\*b/c^def

-a+\*/bc^def

Review Later

SUBMIT ANSWER

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What would be the Prefix notation for the given equation?  $a+b-c/d&e|f$

### OPTIONS

☒  $|&-+ab/cdef$

☐  $&|-+ab/cdef$

☐  $|&-ab+/cdef$

☐  $|&-+/abcdef$

Review Later

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What would be the Prefix notation for the given equation?  $(a|b\&c)$

#### OPTIONS

$a| \&bc$

$\&|abc$

$|a\&bc$

$ab\&|c$

Review Later

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Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

What would be the Prefix notation and Postfix notation for the given equation?  $(A+B+C)$

### OPTIONS

**$++ABC$  and  $AB+C+$**

$AB+C+$  and  $++ABC$

$ABC++$  and  $AB+C+$

$ABC+$  and  $ABC+$

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What would be the Prefix notation for the given equation?

#### OPTIONS

^^^ABCD

^A^B^CD

ABCD^^^

AB^C^D

Review Later

SUBMIT ANSWER

### PASSAGE

A circular queue is an abstract data type that contains a collection of data which allows addition of data at the end of the queue and removal of data at the beginning of the queue. Circular queues have a fixed size. Circular queue follows FIFO principle. Queue items are added at the rear end and the items are deleted at front end of the circular queue.

Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

A circular queue is implemented using an array of size 10. The array index starts with 0, front is 6, and rear is 9. The insertion of next element takes place at the array index.

### OPTIONS

0

6

3

4

Review Later

SUBMIT ANSWER



### PASSAGE

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Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

In the circular array version of the queue (with a fixed-sized array), which operations require linear time for their worst-case behavior?

### OPTIONS

front

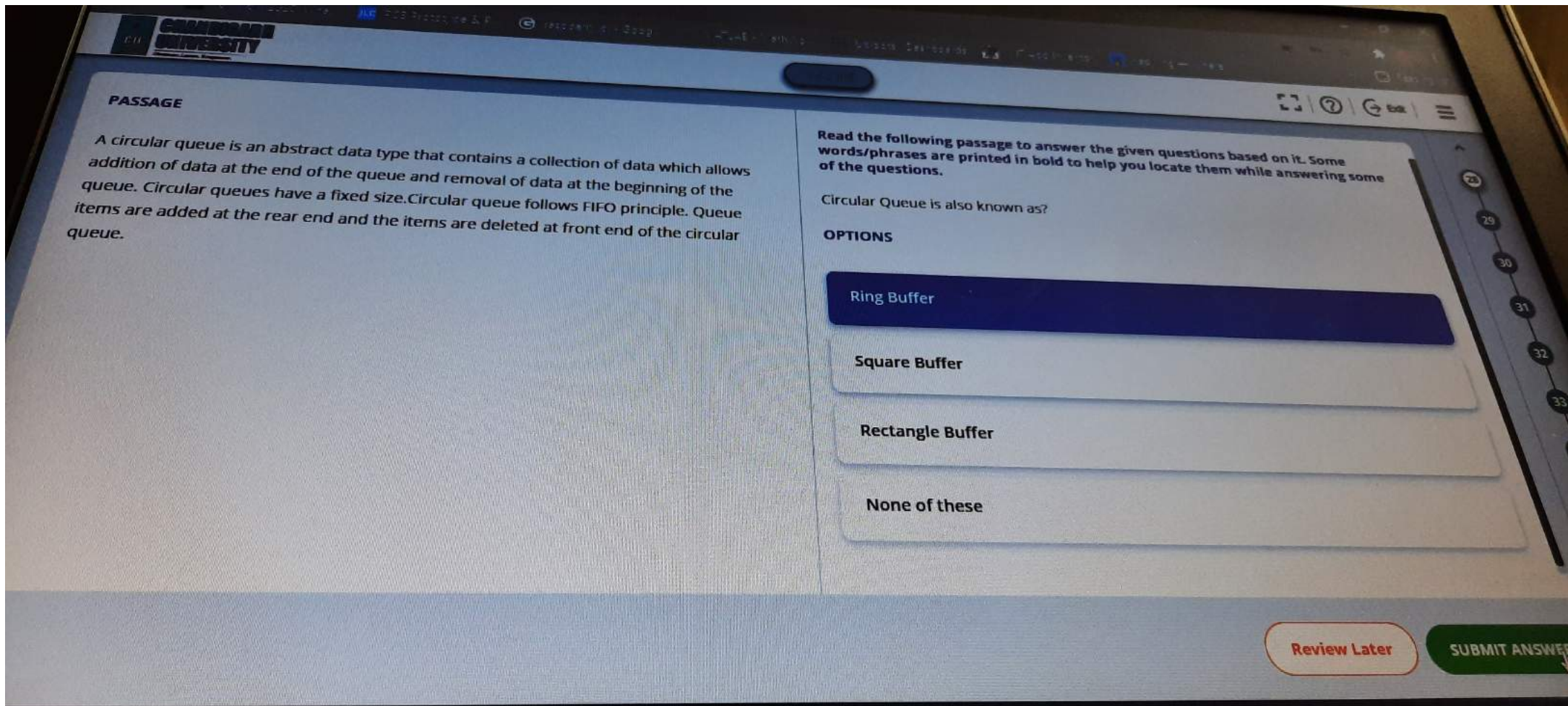
push

empty

None of these

Review Later

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by rajdeep jaiswal



### PASSAGE

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Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

In which queue we can utilize location of deleted element again is called

#### OPTIONS

Stack

Tree

Circular Queue

None of these

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Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

In the array implementation of circular queue, which of the following operation take worst case linear time?

#### OPTIONS

Insertion

Deletion

To empty a queue

None of these

Review Later

SUBMIT ANSWER



### PASSAGE

Kruskal's algorithm finds a minimum spanning forest of an undirected edge-weighted graph. If the graph is connected, it finds a minimum spanning tree. (A minimum spanning tree of a connected graph is a subset of the edges that forms a tree that includes every vertex, where the sum of the weights of all the edges in the tree is minimized. For a disconnected graph, a minimum spanning forest is composed of a minimum spanning tree for each connected component.) It is a greedy algorithm in graph theory as in each step it adds the next lowest-weight edge that will not form a cycle to the minimum spanning forest.

Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

Which of the following is false about the Kruskal's algorithm?

#### OPTIONS

It is a greedy algorithm

It constructs MST by selecting edges in increasing order of their weights

It can accept cycles in the MST

None of these

Review Later

SUBMIT ANSWER

### PASSAGE

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Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

Kruskal's algorithm is used to.....

### OPTIONS

find minimum spanning tree

traverse the graph

find single source shortest path

None of these

Review Later

SUBMIT ANSWER



### PASSAGE

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Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

Which of the following is true?

### OPTIONS

Prim's algorithm can also be used for disconnected graphs

Kruskal's algorithm can also run on the disconnected graphs

In Kruskal's sort edges are added to MST in decreasing order of their weights

None of these

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Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

Kruskal's algorithm is a.....

### OPTIONS

divide and conquer algorithm

greedy algorithm

approximation algorithm

None of these

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Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

What is the time complexity of Kruskal's algorithm?

### OPTIONS

$O(E \log V)$

$O(\log V)$

$O(V \log E)$

None of these

Review Later

SUBMIT ANSWER

### PASSAGE

Quick Sort algorithm was developed by a British computer scientist Tony Hoare in 1959. The name "Quick Sort" comes from the fact that, quick sort is capable of sorting a list of data elements significantly faster (twice or thrice faster) than any of the common sorting algorithms. It is one of the most efficient sorting algorithms and is based on the splitting of an array (partition) into smaller ones and swapping (exchange) based on the comparison with 'pivot' element selected. Due to this, quick sort is also called as "Partition Exchange" sort. Like Merge sort, Quick sort also falls into the category of divide and conquer approach of problem-solving methodology.

Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

Which of the following sorting algorithms is the fastest?

#### OPTIONS

Merge sort

Quick sort

Insertion sort

None of these

Review Later

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Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

What is the worst case time complexity of a quick sort algorithm?

#### OPTIONS

$O(\log N)$

$O(N \log)$

$O(N^2)$

None of these

Review Later

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Which is the worst method of choosing a pivot element?

#### OPTIONS

first element as pivot

last element as pivot

random element as pivot

None of these

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Read the following passage to answer the given questions based on it. Some words/phrases are printed in bold to help you locate them while answering some of the questions.

Find the pivot element from the given input using median-of-three partitioning method.  
8, 1, 4, 9, 6, 3, 5, 2, 7, 0.

### OPTIONS

7

8

5

6

Review Later

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What is the average running time of a quick sort algorithm?

#### OPTIONS

$O(\log N)$

$O(N \log)$

$O(N \log N)$

None of these

Review Later

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