MCQs Practice

of

Introduction to data structures, list, linked list and trees

Q. In a stack, if a user tries to remove an element from an empty stack it is called _____

A. Underflow

B. Empty collection

C. Overflow

D. Garbage Collection

Q. Pushing an element into stack already having five elements and stack size of 5, then stack becomes _____

A. Overflow

B. Crash

C. Underflow

D. User flow

Q. Circular Queue is also known as _____

A. Ring Buffer

B. Square Buffer

C. Rectangle Buffer

D. Curve Buffer

Q. If the elements “A”, “B”, “C” and “D” are placed in a queue and are deleted one at a time, in what order will they be removed?

A. ABCD

B. DCBA

C. DCAB

D. ABDC

Q. A data structure in which elements can be inserted or deleted at/from both ends but not in the middle is?

A. Queue

B. Circular queue

C. Dequeue

D. Priority queue

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

A. Ordinary queue

B. Single ended queue

C. Circular queue

D. Priority queue

Q. Which of these is not an application of a linked list?

A. To implement file systems

B. For separate chaining in hash-tables

C. To implement non-binary trees

D. Random Access of elements

Q. What differentiates a circular linked list from a normal linked list?

A. You cannot have the ‘next’ pointer point to null in a circular linked list

B. It is faster to traverse the circular linked list

C. You may or may not have the ‘next’ pointer point to null in a circular linked list

D. Head node is known in circular linked list

Q. Which of the following application makes use of a circular linked list?

A. Undo operation in a text editor

B. Recursive function calls

C. Allocating CPU to resources

D. Implement Hash Tables

Q. What does ‘stack overflow’ refer to?

A. accessing item from an undefined stack

B. adding items to a full stack

C. removing items from an empty stack

D. index out of bounds exception

Q. Which of the following data structures can be used for parentheses matching?

A. n-ary tree

B. queue

C. priority queue

D. stack

Q. In linked list implementation of a queue, front and rear pointers are tracked. Which of these pointers will change during an insertion into a NONEMPTY queue?

A. Only front pointer

B. Only rear pointer

C. Both front and rear pointer

D. No pointer will be changed

Q. In linked list implementation of a queue, from where is the item deleted?

A. At the head of link list

B. At the centre position in the link list

C. At the tail of the link list

D. Node before the tail

Q. Out of the following operators (|, *, +, &, $), the one having lowest priority is _____

A. +

B. $

C. |

D. &

Q. Out of the following operators (^, *, +, &, $), the one having highest priority is _____

A. +

B. $

C. ^

D. &

Q. What data structure is used when converting an infix notation to prefix notation?

A. Stack

B. Queue

C. B-Trees

D. Linked-list

Q. How many stacks are required for applying evaluation of infix expression algorithm?

A. one

B. two

C. three

D. four

Q. Evaluation of infix expression is done based on precedence of operators

A. True

B. False

Q. What is the maximum number of children that a binary tree node can have?

A. 0

B. 1

C. 2

D. 3

Q. How many common operations are performed in a binary tree?

A.1

B.2

C.3

D.4

Q. How many orders of traversal are applicable to a binary tree (In General)?

A.1

B.4

C.2

D.3

Q. To obtain a prefix expression, which of the tree traversals is used?

A. Level-order traversal

b) Pre-order traversal

C. Post-order traversal

D. In-order traversal

Q. Consider the following data. The pre order traversal of a binary tree is A, B, E, C, D. The in order traversal of the same binary tree is B, E, A, D, C. The level order sequence for the binary tree is _____

A. A, C, D, B, E

B. b) A, B, C, D, E

C. c) A, B, C, E, D

D. D, B, E, A, C

Q. The number of edges from the root to the node is called _____ of the tree

A. Height

B. Depth

C. Length

D. Width

Q. What is a full binary tree?

A. Each node has exactly zero or two children

B. Each node has exactly two children

C. All the leaves are at the same level

D. Each node has exactly one or two children

Q. The number of edges from the node to the deepest leaf is called _____ of the tree.

A. Height

B. Depth

C. length

D.width

Q. Given an empty AVL tree, how would you construct AVL tree when a set of numbers are given without performing any rotations?

A. just build the tree with the given input

B. find the median of the set of elements given, make it as root and construct the tree

C. use trial and error

D.use dynamic programming to build the tree