Write an algorithm for Enqueue operation.

What is a priority queue?

Convert the given infix expression ((a-b)\*(x+y/f-c\*e+d)) into postfix using the stack method.

Define stack as an ADT.

Evaluate the postfix expression 2 3 1 \* + 9 –

Write an algorithm for POP and PUSH operations of a stack.

Convert the infix expression a+bc+(de+f)\*g into Prefix expression.

What is Priority queue?

What is double linked list? Write an algorithm to insert the item in double linked list.

Define Infix, prefix, and postfix expression. Convert the following infix expression to postfix: x^y / (5 \* 2) + 2

What is Stack ADT? Write an algorithm for push and pop in the stack.

What is Queue? Explain how the (enqueue, dequeue, empty and full operations are implemented and checked in queue with an example.

Explain how queue and stack differ along with its area of application.

What is the application of priority queue over normal queue?

Define circular queue.

What is a circular list? Write an algorithm for inserting a node at the front.

Convert the given info to postfix operation.

((A+B)-C\*(D/E))+F

What is Queue ADT? Write an algorithm for enqueue and dequeue operation in the queue.

What is Binomial Queue?

What is Linked list? Write an algorithm to insert and delete the element in the single linked list.

Convert A \* (B + C) \* D to postfix notation.

What is circular queue? How Circular Queue differ from normal queue?

What are the main features of queue?

Find the prefix and postfix expression of a + b / (c $ d).

Define priority queue. Which is the best data structure to implement priority queue?

What is the advantage of postfix notation? Convert the postfix expression abc-+de-fg-h+/\* into infix notation.

What do you mean by priority queue? Create the leftist heap by inserting following data step by step.

10, 20, 30, 15, 5, 25, 40, 30

Explain Queue as ADT. Write an algorithm for en-queue and de-queue in queue.

How is an array different from linked list?

Find the prefix expression of a - b $ c \* d / e.

Explain stack data structure and write the algorithms for different operations on stack.

What do you mean by priority queue? Create the skew heap by inserting following data step by step.

10, 20, 30, 15, 5, 25, 40, 30

Explain different types of linked list. Write advantages, disadvantages and applications of linked list.

What are the advantages of circular queue over linear queue?

Write any four applications of stack.

Find the postfix expression of a + b $ c / d \* e.

What are the advantages, disadvantages and applications of linked lists? Explain its types and operations.

What do you mean by priority queue? Create a min 2-heap for the following data:

10, 15, 7, 3, 12, 20, 4, 8, 10, 30, 1 and remove one element from this descending heap

For circular queue, write algorithms to implement enqueue() and dequeue() operations with all the required conditions and appropriate diagrams. Convert the following infix expression to postfix expression with required status of stack.

((a+((b\*c)/(d-c)))) [5+5]

How do you implement array to represent queue as list? [4]

Explain the application areas of doubly linked lists. Write algorithms to implement all the basic operations of stack using singly linked list. [3+7]

Define stack. Convert following infix expression to postfix expression showing stack status in each step: A×(B+C)-(B^D)×A+E/F. [2+6]

Explain the significance of dynamic list data structures over static list. Write algorithms to implement list structure using array for the operations:

a) Insert at given position in the list b) Delete from given position in the list [2+4]

Consider two linked lists that represent two polynomials. Subtract them and return the difference as a linked list. Write an algorithm and program to implement above scenario. [10]

What is a queue? Explain circular queue as an ADT.

Convert the following infix expression postfix expression showing stack status in each step:

A+(B\*C-(D/E^F) \*G) \* H

How do you represent polynomial equation using linked list? Write an algorithm to add two polynomial equations using linked list.

What are the problems with linear queue?

Convert the infix expression A+B-(C\*D/E+F)-G\*H into postfix expression using stack. Evaluate the converted postfix expression using stack for given values.

Explain different queue operations in circular queue.

What are the advantages of doubly linked list over singly linked list? Write an algorithm to insert a node before a given node in a singly linked list.

Define stack.

What is a queue? What are different operations that can be performed over a queue?

Convert the following infix expression showing stack status after every step:

(A\*B\*(((C^X+D^Y)+E/Z)\*F)))

Illustrate the use of stack in recursion taking any recursive program of your choice.

Explain with an example how a node in a singly linked list can be deleted

Define stack. Evaluate the postfix expression A \* B - C \* D / E + F \* G with the status of the stack where A = 2, B = 3, C = 10, D = 5, E = 2, F = 4, and G = 6.

Differentiate linear queue and circular queue with a suitable example.

Explain array representations of stack using linked list. How do you add a node at the Kth position of the doubly linked list?

Define ADT and construct ADT of Linked List using value definition and operator definition.

What is the difference between array representation of list and dynamic list?

Define stack. How to convert infix to postfix notation? Explain with an example. Evaluate the postfix expression AB+C+DEFG-\*+ with the status of the stack where A = 2, B = 3, C = 10, D = 5, E = 2, F = 4, and G = 6.

Write algorithms of implementation of stack and queue using singly linked list.

Define queue. Explain enqueue and dequeue operations with examples.

Write algorithms of insertion and deletion of data in array implementation of lists.

How do you delete a node at the end of the doubly linked list?

Convert the expression A + B - C \* (D - E + F / G) / H into postfix expression using a stack.

Explain how a circular queue differs from a linear queue with a suitable example. Show the status of the stack while converting the following infix expression to postfix expression:

A + B - C \* (D - E + F / Y) - G \* H

Differentiate between a static and dynamic list structure and write an algorithm for forgetnode() and freenode() of a static list structure.

How do you perform a push and pop operation in a stack as a linked list? How do you insert and delete a node at the kth position of the doubly linked list?

What is a stack?

Differentiate static and dynamic implementation of a list with a suitable example.

Define different types of linked list with a suitable example.

Write an algorithm to convert infix expression into postfix expression using a stack.

Explain enqueue and dequeue operations in a circular queue.

Write an algorithm to create a single linked list.

Convert the following expression to postfix and prefix:

(A + B \* C - (D - E)) \* (F + G)

Write an algorithm to move one node to another place after a node in a singly linear linked list.

What are the types of linked list?

Write an algorithm for converting infix expression to postfix expression. Convert a given infix expression A + (B \* C - (D / E - F) \* G) \* H into postfix expression showing stack status after every step in tabular

form.

What are the demerits of a simple linear queue? Write an algorithm to insert and remove data items for a circular queue with the condition for queue full and empty. Trace your algorithm with an example.

What are the types of linked list? Discuss the considerations that have to be taken while developing algorithms/programs with a linked list. Why are alias variables dangerous in a linked list? Write an algorithm to delete the first node in a singly linked list.

What do you mean by abstract data type? Write an algorithm for enqueue and dequeue operations in a queue.

Define stack as an ADT. Convert the following infix expression onto prefix and postfix:

* a) A + (B + C - (D + E) \* F) / G
* b) (a + b) \* c - (d - e) $ (f + g)

What are linked lists? Write an algorithm for inserting a node before a node and deleting a node after a node in a singly linked list.

Define stack as an ADT. Write an algorithm for evaluating postfix expression. Evaluate a given postfix expression: 464+\*8/4- in tabular form showing stack after every step Write an algorithm for a linear queue where both the head and tail pointers vary.

What are the applications of queue? Write an algorithm for linear queue where both the head and tail pointer vary. Trace your algorithm with an example.

Discuss the merits and demerits of contiguous list and linked list. Write algorithms to insert and delete a node after a node in a singly linked

list.

What is circular queue? Write an algorithm to implement circular queue with the condition for the queue full and empty.

Write the merits and demerits of contiguous list and linked list. Discuss the implementation of stack array.

What is doubly linked list and what are its features? Write the algorithms to delete a particular node in singly linked list.

Write an algorithm to delete a node before a node in singly and doubly linked list.

Define abstract data type. Write the algorithm of enque and deque operations in circular queue.

Convert the following infix expression into prefix and postfix expression. i) (ab-c+d)/(e-f+g)(h+g) ii) ((a+b)c-(d-e))(f+g)

Define circular queue? How does circular queue overcome the limitation of linear queue? Explain.

What is singly linked list? Write an algorithm to add a node at the beginning and end of singly linked list.

What is stack? List the applications of stack. Write an algorithm or procedure to perform PUSH and POP operation in stack.

What is Data Structure? Show the status of stack converting following infix expression to postfix P+Q-(R*S/T+U)-V*W

What is circular queue? Write an algorithm to insert an item in circular queue.

Define stack. List the applications of stack. Trace the algorithm to convert infix to postfix with following infix expression ((A+B)-C*D/E)*(H-I)\*F+G and evaluate the obtained postfix expression with following values: A=4, B=2, C=4, D=3, E=8, F=2, G=3, H=5, I=1.

What is double linked list? How does it differ from circular linked list? Write an algorithm or function to add a node at the beginning and end of double linked list.

Write an algorithm to convert infix expression to postfix.

Write a program to implement basic operation in queue.

What is circular linked list? Write a function to delete the node from linked list.

How can you convert from infix to post fix notation?

How can you use Queue as ADT?

Write a menu program to demonstrate the simulation of stack operations in array implementation.

State relative merits and demerits of contiguous list and Linked list. Explain the steps involved in inserting and deleting a mode in singly linked list.

Write C function to display all the items in a circular queue in array implementation. Write assumptions, you need.

Explain CLL, DLL, DCLL (Circular, Doubly, Doubly Circular Linked List).

Define stack as ADT. Describe its primitive operations on Array implementation and linked list implementation.

Construct an expression tree from the given postfix expression: AB+C+DC--FG+$.

Differentiate between singly linked lists, doubly linked lists, circular linked lists, and doubly circular linked lists.

Describe the operations of a circular queue implemented using an array.

Discuss the merits and demerits of contiguous lists (arrays) and linked lists.

What is a priority queue? How is it best implemented?

Define Queue as an ADT. Write a program for basic operations in Linear queue in array implementation.

Explain In-fix to Postfix Conversion Algorithm. Illustrate it with an example. What changes should be made for converting postfix to prefix.

Differentiate between contiguous list and linked list with examples.

Explain why linked list is called dynamic list? Write the algorithm for deleting a new node before a node.

Define Queue as ADT. Describe its primitive operation on array implementation and linked list implementation.

Explain the algorithms for infix to postfix conversion and evaluation of postfix expression. Trace the algorithms with suitable examples.

How do you insert a node at the last in a doubly linked list? Explain.

State the relative merits and demerits of contiguous list and linked list.

What is Postfix expression? Write an algorithm to evaluate value of postfix expression. Trace the following expression into postfix expression: (A+B+C)+D-E/F)

What is circular queue? Write an algorithm and C function to implement Circular queue.

Write an algorithm and C function to delete node in singly link list.

Write short notes on: b) Doubly Link list

What is stack? How is it different from queue? Write a program to implement all stack operations.

What is linked list? Explain the process of inserting and removing nodes from a linked list.

Transform the postfix expression AB + C DEF + $ to infix.

Write short notes on:

b. Circular queue

What is stack? How is it different from queue? Write a program to implement all stack operations.

What is linked list? Explain the process of inserting and removing nodes from a linked list.

Discuss array as an ADT.

Transform the postfix expression AB + C DEF + $ to infix.

Write short notes on:

b. Circular queue

What is Postfix expression? Write an algorithm to evaluate value of postfix expression. Trace the following expression into postfix expression: (A+B+C)+D-E/F)

What is circular queue? Write an algorithm and C function to implement Circular queue.

Write an algorithm and C function to delete node in singly link list.

Write short notes on: b) Doubly Link list

How can you use stack to convert an infix expression to postfix? Convert infix expression (A+B)\*(C-D) to postfix using stack.

Compare stack with queue. How is linear queue different from circular queue?

What are benefits of using linked list over array? How can you insert a node in a singly linked list?

 Why are data structures needed? Write any data structure as ADT and list applications of Stacks.

 Can you always insert an item into an empty queue? Explain with possible reasons and examples.

 Explain the advantages of dynamic implementation of Stack and Queue over sequential storage for representing Stack and Queue.