QUEUES

1	Differentiate between queue and priority queue.
2	In a bank, the customers entering for the cash transactions are made to sit in a row of chairs. Every customer entering for the transaction gets a token and he/she sits on a chair beside the customer at the tail end. The customer who is sitting at the initial chair in that row will be called for the transaction and is the first to leave the chair. Write pseudocodes to simulate this customer entry / exit model for the bank.
3	Write C routines to implement queue operations using output restricted deque for which the operations removeleft() , insertright() and insertleft() are valid.
4	Explain the different ways of implementing the structure of a priority queue.
5	Write C functions to implement enqueue(insert) and dequeue(remove) of circular queues.
6	Write C function to reverse all the elements in a queue.

7	Differentiate between
	    i. Stacks and Queues
	    ii. Linear queue and Circular queue

8	Write necessary C modules to implement an Ascending Priority Queue accepting integers as an input and ensure priority at the time of insertion.
9	Discuss the limitations of linear queues. Name and describe which data structure has overcome the limitations of linear queues.

10	Write the c functions for the following operations of circular queues.
	    i. CQinsert()
	    ii. CQdelete()

11	Explain with the pseudocode to implement queue operations using input Restricted Deque (double ended queue) works. insertqfront(), remvleft(), remvright(), displayq()
12	Compare and contrast between Stacks and Queues of linear data structure.
13	Discuss the limitations of linear queues. Write an algorithm, how the insertion of elements and deletion are done in circular queues.
14	Write a C routines for the implementation of a Descending Priority Queue with following given operations: • pqinsert ( ) pqmaxdelete ( ) pqempty ( )
15	Discuss the advantages of circular queues over linear queues. Explain the different

	scenarios of priority queues.
16	Show how to implement a queue of integers using an array q[10], where q[0] is used to indicate the front of the queue, q[1] is used to indicate its rear and q[2] through q[9] are used to contain queue elements. Also, show how to initialize such an array to represent empty queue and write routines dequeue() and enqueue() operations for such an implementation.
17	Explain with the pseudocode to implement queue operations using Output Restricted Deque (double ended queue) works. Insertqfront ( ), insertqqrear ( ), remvleft ( ) are valid display ( )