**Class Exercise on Queues**

**Set A**

1. Write a program to implement Queue using arrays.

**Definition of Done:**

a) The program should display a menu (1) Enqueue (2) Dequeue (3) Display (4) Exit.

b) The program should define functions for the menu item listed above.

1. Write a program to represent Queue using linked list.

**Defining of done:**

a) The program should display a menu (1) Enqueue (2) Dequeue (3) (4) Exit.

b) The program should define functions for the menu item listed above.

3. Write a program to count the even numbers in a queue using arrays.

4. Write a program to reverse the first m elements from the queue, where m < n, n is the total number of elements in queue.

5. Write a program to implement a queue using two stacks;

6. Write a program to reverse the string using queue;

7. Write a program to sort the values in ascending order in a queue.

**Set B**

1. Write a menu – driven program to Implement Circular Queue .

**Definition of Done:**

a) The program should display a menu (1) Enqueue (2) Dequeue (3) Display (4) Exit.

b) The program should define functions for the menu item listed above.

1. Write a program to find duplicates elements in a circular queue.
2. Write a program to find the frequency of each element in a circular queue.
3. Write a program to find the unique values in a circular queue.
4. Write a program to find the element ‘s’ in a circular queue
5. Write a program to check the number is palindrome or not in a linear queue.

**Set C**

1. Write a menu-driven program for the Implementation of DEQUEUE

**Definition of Done:**

a)The Program should perform the following operations (1) Insertion at Rear (2) Insertion at Front (3) Deletion at Front (4) Deletion at Rear (5) Peek (6) Display.

1. Write a menu-driven program for PRIORITY QUEUE with all operations.

**Definition of Done:**

a) The program should display a menu (1) Enqueue (2) Dequeue (3) Display (4) Exit.

b) The program should define functions for the menu item listed above.

1. Write a program to display only those characters which comes exactly twice in a linear queue.
2. Write a program to replace the character ‘e’ with ‘a’ each times it comes in a circular queue.
3. Write a program to delete the top 3 elements in a linear queue.
4. Write a program to replace the top 3 elements with characters – ‘a’, ‘r’, ‘g’ respectively in a linear queue .
5. Write a program to replace the character ‘a’ with ‘t’ first time it occurs in a circular queue.
6. Write a program to check if the last two numbers both are divisible by 5 in a linear queue.
7. Write a program to check if the last digit contains 0 in a linear queue.