SSN College of Engineering

Department of Computer Science and Engineering

UCS1313 – Object Oriented Programming using Java Laboratory

II Year CSE - A Section (III Semester)

Academic Year 2019-20

Exercise - 9– Collection Framework

Objective:

1. To perform operations on LinkedList and Queue in Java

Sample Learning Outcome:

1. Usage of LinkedList and Queue in Java

2. Perform operations using Collection framework

3. Store and manipulate user defined object in collection framework

Best Practices:

1. Class Diagram usage

2. Naming convention – for file names, variables

3. Comment usage at proper places

4. Prompt messages during reading input and displaying output

5. Incremental program development

6. Modularity

7. All possible test cases in output

1. Using Collection framework, create a doubly linked list of integers and perform the following operations.

   a. Insert element on both sides

   b. Delete element on both sides

   c. Insert an element at a particular position

   d. Delete a particular element

   e. Search for a particular element

   f. Display list in forward order and backward order

   g. Sort the elements in LinkedList

   h. Replace one element in the list with another list

   i. Remove duplicate elements

2. Create a class "Movie" with name, actor, year, genre and rating as data members. Add functions to get inputs and display. Write a program to create a Movie Linked Queue using collection framework. Perform the following operations:

   a) Add a Movie at last

   b) Remove a Movie from front

   c) Display the Movie details in queue

   d) Display the movies based on rating score

   e) Display the movies based on recent release