Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam – 603 110

(An Autonomous Institution, Affiliated to Anna University, Chennai)

Department of Information Technology

Course Code	UIT2702	Course Name	Cloud and Distributed Computing
Regulation	2021	Academic Year	**2025-2026**
Semester		VII	
Department Offering the Course		Information Technology	
Exercise: 03		Message passing and distributed mutual exclusion	

Exercise: Message passing and distributed mutual exclusion

AIM:

To implement message passing and distributed mutual exclusion using sockets.

PROCEDURE:

Task 1 - Message Passing System:

- Create a server that listens for connections and allows multiple clients to connect via sockets.
- Each client can send and receive messages, enabling communication between distributed processes.

Task 2 - Distributed Mutual Exclusion:

Implement the Ricart-Agrawala algorithm, Token Ring Algorithm, Centralized Coordinator Algorithm for mutual exclusion among distributed processes. For each algorithm

•Processes request access to a critical section (CS) by sending messages.

•Ensure that only one process enters the CS at a time.

•Use message passing to request, grant, and release access to the CS.