

Class: Final Year (Computer Science and Engineering)

Year: 2023-24      Semester: 1

Course: High Performance Computing Lab

### **Practical No.10**

PRN No:

Name:

Q1: Implement a MPI program to give an example of Deadlock.

Q2. Implement blocking MPI send & receive to demonstrate Nearest neighbor exchange of data in a ring topology.

Q3. Write a MPI program to find the sum of all the elements of an array A of size n. Elements of an array can be divided into two equals groups. The first  $\lceil n/2 \rceil$  elements are added by the first process, P0, and last  $\lceil n/2 \rceil$  elements the by second process, P1. The two sums then are added to get the final result.