**Class:** Final Year (Computer Science and Engineering)

**Year:** 2023-24 **Semester:** 1

**Course:** High Performance Computing Lab

**Practical No. 12**

**Exam Seat No:**

**Full Name**:

**Title of practical:** Analysis of MPI Programs

**Problem Statement 1:**

Execute the MPI program (Program A) with a fixed size broadcast. Plot the performance of the broadcast with varying numbers of processes (with constant message\_size). Explain the performance observed.

**Screenshot:**

**Analysis:**

**Problem Statement 2:**

Repeat problem 2 above with varying message sizes for reduction (Program B). Explain the observed performance of the reduction operation.

**Screenshot:**

**Analysis:**