**Amrita School of Computing**

**Sample lab evaluation**

**19CSE312:Distributed System**

**SET -1**

1.Wrire a MPI program to demonstrate the use of parallel processing for array elements addition and finding the minimum element in an array.

2. You are tasked with writing an MPI program that performs the transpose of a matrix distributed across multiple processes. This requires using MPI's collective communication functions for efficient data exchange. Use MPI's collective communication operations such as MPI\_Gather, MPI\_Scatter, or MPI\_Bcast to distribute and collect the data across all processes.

**SET-2**

1.Wrire a MPI program to demonstrate the use of parallel processing for sorting an array element and finding the minimum element in an element in an array.

2. You are tasked with writing an MPI program that performs the eigen values of a matrix distributed across multiple processes. This requires using MPI's collective communication functions for efficient data exchange. Find the eigen vectors corresponding to highest eigen value. Use MPI's collective communication operations such as MPI\_Gather, MPI\_Scatter, or MPI\_Bcast to distribute and collect the data across all processes.