Assignment #2

Date: 17 March, 2022

Due date: 27 March, 2022 Total Marks: 110

Late Submission and Plagiarism Policy

- Late submission even by a minute will be marked zero
- Viva can be taken from any student with suspected plagiarism
- Non-submission of demo video will be considered plagiarized

Problem:

Implement a simple code to provide the functionality of below MPI functions. You are supposed to use blocking **MPI_Send(….)** and **MPI_Recv (….)** OR non-blocking MPI_ISend() and MPI_IRecv functions ONLY.

1. MPI_Bcast(….)
2. MPI_Scatter(….)
3. MPI_Gather(….)
4. MPI_Reduce(…)
5. MPI_Scatterv(…)
6. MPI_Gatherv(…)
7. MPI_Allgather(…)
8. MPI_Allgatherv(…)
9. MPI_Alltoall(…)
10. MPI_Alltoallv(….)
11. MPI_Allreduce(….)

What to submit:

- .c file of each program, the output command clearly indicated the machinefile, so that result should prove that it was run on multiple VM(or machines) or parallel machines.
- Demo video for all, that demonstrates the concepts and code execution(not exceeding 3 mins)