CÓMPUTO PARALELO Y DUSTRIBUIDO
MPI

1. What is MPI4Py and how does it relate to parallel computing in Python?
2. How do you initialize and finalize an MPI environment using MPI4Py?
3. Explain the difference between blocking and non-blocking communication in MPI4Py.
4. How can you determine the rank of a process and the total number of processes in an MPI program using MPI4Py?
5. What are the basic point-to-point communication operations in MPI4Py, and how do you use them?
6. Describe the purpose and usage of collective communication operations in MPI4Py.
7. How do you create and use custom MPI datatypes in MPI4Py?
8. Explain the concept of communicators in MPI and how they are implemented in MPI4Py.
9. What are the advantages and challenges of using MPI4Py for distributed computing compared to other Python parallelization libraries?
10. How can you implement a simple parallel matrix multiplication algorithm using MPI4Py?