

NAME-ISTIAQUE MANNAFEE SHAIKAT
MATRICULATION NUMBER-303527

Exercise 1

Time performance for NsendAll

SIZE OF THE VECTORS	P	TIME/second
10 ⁷	4	0.1745
	8	0.3905
	16	0.8999
	24	1.3718
	32	1.7948

SIZE OF THE VECTORS	P	TIME/second
10 ⁵	4	0.0031
	8	0.0144
	16	0.0624
	24	0.0873
	32	0.1270

The python codes consists of Nsendall function which sends the data to all other workers and the comm.barrier() is used to wait until all the worker finishes their task together.

Time performance for EsendAll

SIZE OF THE VECTORS	P	TIME/second
10 ⁷	4	0.2323
	8	0.2355
	16	0.2387
	24	0.2415
	32	0.2424

SIZE OF THE VECTORS	P	TIME/second
10 ⁵	4	0.00250
	8	0.00290
	16	0.00270
	24	0.00257
	32	0.00252

This python codes consists of EsendAll() function to send the data in efficient way the comm.barrier() is used at the end of the function to wait for all the workers to finish the task together.

Exercise 2

Time table for RGB

P	TIME/second
4	2.792
8	2.205
16	1.468
24	0.680
32	0.424

Time table for BGR

P	TIME/second
4	3.210
8	2.261
16	1.559
24	0.695
32	0.381