Mid term exam (20%)

A

1. (14%) Write a CUDA C++ multithreading program multiplying two n x n integer matrices. Assign a number of threads in the GPU to match n. Think and comment which operations should run in parallel. Submit a *.zip file with one *.cu file and with *cuh header if you need.
2. (6%) Develop a program that shares and decreases the value of a variable from 20 till 1 among 12 threads. Submit a *.c++ and/or *.c file.

B

1. (14%) Write a CUDA C++ multithreading program multiplying two n x n integer matrices. Assign a number of threads in the GPU to match n. Think and comment which operations should run in parallel. Submit a *.zip file with one *.cu file and with *cuh header if you need.
2. (6%) Develop a program that shares and increases the value of a variable from 0 till 20 among 8 threads. Submit a *.c++ and/or *.c file.

Allow user to enter the size of the NxN matrix;
Print results to terminal with both CPU and GPU;
Verify with the same matrix without hardcoding values;
Name your files as task1.cu and task2.cpp;