Unit 9 - Week 7

Week 7 Assignment 7

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-11-04, 23:59 IST.

1) Co-processors or accelerators are used for increasing the clock-speed of the CPU to solve a single large task — *1 point*

a. True
b. False

a.
b.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b.

2) A typical feature of GPU hardware is — *1 point*

a. 1000-s of cores with small or no cache
b. 1000-s of cores with small RAM
c. Large RAM with complex control algorithm
d. 100-s of cores directly connected to CPU RAM and cache

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a.

3) In a GPU enabled program, programmer can specify a region which will bypass the CPU-s and directly run on GPU-s — *1 point*

a. True
b. False

a.
b.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b.

4) A CUDA kernel is launched as a grid, which is structured as: — *1 point*

a. Grid has number of blocks and each block has same number of threads
b. Grid has number of blocks and each block may have different number of threads
c. Grid has number of block and the number is fixed as the number of SM-s in the GPU
d. Grid may have threads, which may not belong to blocks

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a.

5) Which of these memories is not physically located on the SM chip? — *1 point*

a. Shared memory
b. Register
c. Local memory
d. None of these

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c.

6) In a general non-unified memory architecture for a CUDA program, what should be process flow? — *1 point*

a. CPU launches the kernels, kernel function reads memory from the main (CPU) RAM and processes the instructions
b. CPU copies the relevant data from CPU RAM to device RAM, then the kernels are launched in GPU. The updated memory from GPU RAM is copied back to system memory
c. CPU launches the kernels. Kernel function copies data from system memory to DRAM and updates it. Once, the kernel is over, CPU copies back the memories from DRAM
d. CPU and GPU share the same memory combining host and device RAM. Updates are done as per kernel or CPU code execution

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b.

7) Total number of threads in a CUDA kernel is specified by — *1 point*

a. Total number of cores available
b. Execution command
c. Execution specifier
d. Execution configuration

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
d.

8) A CUDA kernel function, which is to be called from the CPU to run in the GPU must have the execution space specified. — *1 point*

a. __void__
b. __host__
c. __global__
d. __device__

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c.

9) The grid size is specified as dim3 gird size (8, 12). Then the number of blocks in x, y and z direction will be respectively — *1 point*

a. 8, 12, 0
b. 8, 12, 1
c. 8, 8, 12
d. 96, 96, 0

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b.

10) In a CUDA kernel, the variable **threadidx.x** specifies — *1 point*

a. Total number of threads in x direction in the block
b. id of the thread in x direction in the grid
c. id of the block in the grid
d. None of the above

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
d.