

Quiz 06

Due May 13 at 11:59pm **Points** 10 **Questions** 10
Available May 9 at 11:59am - May 13 at 11:59pm 5 days **Time Limit** 60 Minutes

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	5 minutes	10 out of 10

⚠️ Correct answers will be available on May 14 at 12:01am.

Score for this quiz: **10** out of 10

Submitted May 11 at 2:21pm

This attempt took 5 minutes.

Question 1

1 / 1 pts

In OpenCL, what is a float16?

- ☒ A 16-element SIMD floating point array
- ☐ A 16-bit floating point number.
- ☐ A 16-byte floating point number.
- ☐ A floating point number aligned on a 16-byte boundary.

Question 2

1 / 1 pts

An OpenCL **Device** is composed of:

☐ Command Queues

☐ Processing Elements

☒ Compute Units

☐ Platforms

Question 3

1 / 1 pts

An OpenCL **Compute Unit** is composed of:

☐ Devices

☐ Streaming Multiprocessors

☐ Platforms

☒ Processing Elements

Question 4

1 / 1 pts

What does the Yellow Robot + Grippers picture model?

☐ Processing Element + Devices

☐ Processing Element + Compute Units

☒ Compute Unit + Processing Elements

☐ Compute Unit + Devices

Question 5

1 / 1 pts

Why does OpenCL use a **Command Queue**?

Note: there are two correct answers here. You must mark both to get full credit.

☐ So that you don't need to know what each command does.



So that you don't have to wait until OpenCL is ready to send it new commands

☐ Because this is how the hardware works.

☒ So that OpenCL can gobble OpenCL commands as fast as it can.

Question 6

1 / 1 pts

In OpenCL, what does **"The Host"** refer to?

☐ The networking hardware

☐ The OpenCL hardware.

☐ A server elsewhere on the Internet

☒ The hardware on which you are running your main C/C++ program.

Question 7

1 / 1 pts

In OpenCL, what does **"The Device"** refer to:

- ☐ A server elsewhere on the Internet
- ☐ The networking hardware
- ☒ The OpenCL hardware
- ☐ The hardware on which you are running your main C/C++ program

Question 8

1 / 1 pts

Where does the OpenCL compiler live?

- ☐ On the OpenCL device
- ☐ Elsewhere on the Internet
- ☐ On the device on which you are running your main program
- ☒ In the OpenCL driver

Question 9

1 / 1 pts

What is the relationship between **Global Data Size**, **Work Group Size**, and **Number of Work Groups**?

- ☐ $\text{Number of Work Groups} = (\text{Work Group Size}) * (\text{Global Data Size})$
- ☐ $\text{Global Data Size} = (\text{Number of Work Groups})^2$
- ☐ $\text{Work Group Size} = (\text{Global Data Size}) * (\text{Number of Work Groups})$

☒ Global Data Size = (Work Group Size) * (Number of Work Groups)

Question 10

1 / 1 pts

What does the OpenCL function `get_global_id(0)` do?

- ☐ Tells you where you are in the local dataset
- ☐ Tells you what work-group you are in
- ☐ Tells you how many work-groups you have
- ☒ Tells you where you are in the overall 1D dataset

Quiz Score: **10** out of 10