**PART 2.** Answer the following question/statements by providing a short explanation (1 to 2 sentences). Each answer is worth five (5) points.

1. What is the main difference between computer organization and computer architecture?

Computer organization focuses more on the physical aspect of device/computer and its interconnections that make the computer architecture possible. Such as interfaces between the computer and its peripherals, types of processor, memory, or other components. While computer architecture focuses on the set of rules and methods that describes the logical functionality of a computer system. For instance, instruction sets, data types, I/O mechanisms, and methods for addressing memory. In other words, computer organization is on the physical aspect while computer architecture is on the logical aspect of a computer.

1. In the simplest terms possible, define what cache memory is.

A cache is a type of memory that temporarily stores memory/data and instructions that have already been used or frequently used for a quicker processing and retrieval of memory/data.

1. Differentiate between persistent and non-persistent storage.

Persistent storage, also called volatile storage or short-term storage, is computer memory that requires power to maintain the stored information/data. Hence, if computer loss its power or interrupted, the stored information/data will be quickly lost. While non-persistent storage is the opposite of persistent storage, thus its name “non-persistent,” it is also a called non-volatile storage or long-term storage. It is a type of computer memory that can retain stored information/data even after power is removed or interrupted.

1. What is the single, most important negative effect that might happen if computer manufacturers shorten the span of time between changes in computer architecture? (e.g., what if tomorrow, processor manufacturer decides to release a 128-bit processor chip?)

The most negative effect that might happen is that the computing performance as well as computer system will not be able to keep up if computer architecture become more advance. Hence, the algorithm and data structure needs to be changed in order for it to keep up with the new hardware.

1. In terms of overall performance, what can immediately make an impact in improving a computer system's performance: A change in architecture or organization?

For me, in improving the computer system’s performance ideally both architecture and organization should be change/upgraded at the same time. Because if architecture can process petabytes of data in a single second but the organization’s technology is only on the fourth generation then the hardware will not be able to keep up. Hence, slowing the performance. This will also happen if organization is too advance, that the algorithm and data structure is not suitable to the speed of the hardware.