**PART 1.** Decide on whether the following statements are True or False. Should your answer be false, offer 1 to 2 sentence explanation on what made the statement wrong. Each item with a TRUE answer is given four (4) points, while each FALSE answer is awarded eight (8) points, including the explanation. False answers without any explanation shall be awarded with two (2) points.

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| **STATEMENTS** | **TRUE / FALSE** | **EXPLANATION** |
| Programmers and developers are  more inclined to consider computer  organization over architecture, as  the former deals with the instruction  sets, memory addresses and the  general rules in creating programs. | TRUE |  |
| Generally speaking, computer  architecture is preserved in an  organization, mainly because  manufacturers want to protect the  users' software investments. | FALSE |  |
| A cache memory is the same as the  main memory, only smaller and  slower. | FALSE | The statement make it wrong is the same as the main memory, only smaller and slower and the correct statement is cache memory needs to be much smaller than main memory. |
| A persistent storage is required in a  computer system in order for the  currently used data to be stored and  processed more quickly. | TRUE |  |
| Each physical processor chip can  have more than one core inside it. | TRUE  TRUE  TRUE |  |

**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 architecture is concerned with how a computer system's hardware is linked to one another. The structure and behavior of a computer system as observed by the user are the focus of computer organization.

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

This chip-based feature of your computer allows you to access some information more rapidly than if you get it from the main hard drive. Cache is the temporary memory that is technically referred to as "CPU cache memory."

1. Differentiate between persistent and non-persistent storage.

We may define non-persistent data as data that is available only while the program is running. Activate this post's status. Data that you wish to remain accessible even after fully closing and restarting your program is known as persistent data.

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 torelease a 128-bit processor chip?)

The most significant adverse consequence that may occur if computer makers reduce the amount of time between architectural changes in computers is that they might opt to introduce a 200-bit processor chip.

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?

Computer architectures describe how a computer's hardware components are connected to one another and how data is transferred and processed. The development of various computer architecture configurations has sped up data transfer rates and enhanced data processing.