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CSI 130 01CA

Ch1-8:1,3,5,8,14

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1.) The parts common to all computing devices are; input/output devices(mouse, keyboard etc.), memory(RAM), and the CPU(Intel, AMD, ARM etc.). These can be found in all modern computer devices whether it’s a super computer like IBM’s Deep Blue or a beeper from Motorola.

3.) The name of the first general purpose electronic computing device is the Electronic Numerical Integrator Computer or also known as the ENIAC. This computer represented a shift from static machines that were built with one function in mind to a programmable device that could be programmed to serve multiple functions.

5.) According to ch.1-4 of the text, the Attanasoff-Berry computer pioneered three key concepts.

* The ABC used vacuum tube switches. Previously computers relied on mechanical mechanisms to serve as switches.
* It used a binary numbering system to represent data.
* Thirdly, he separated memory from computation.

8.) A transistor controls the flow of electricity through components of a computer. This allows for a more efficient machine and the ability to control “on-off” states with more timely results. For example, a transistor can send a low voltage signal to a component to represent a 0, meaning it’s off. And vice-versa to represent the 1 state.

14.) I think there’s quite a few reasons for the use of high-level languages. The book cites that it’s in an effort to reduce coding errors. The more simplified we as human beings can make something the more likely the average person can use that tool. Computer languages are no exception. For instance, compare “Hello World” in Python to C++. It’s a 1:5 ratio in lines of code. As computers become more powerful the need to be “near the metal” is negated. However, there’s always going to be an advantage to being “closer” to the components regardless of how small the gains in performance may be.