* What is main, secondary, and backup memory?
  + Main memory is, RAM or Random Access Memory. It is constructed using Integrated Circuits and is volatile; meaning that, RAM does not maintain state or data when power is not applied.
  + Secondary memory is, typically, the hard disk. This disk has an enormous storage capacity in comparison to RAM and is considered non-volatile memory; in that, state or data is stored regardless if power is applied or not.
* Explain CPU
  + Central Processing Unit - is the electronic circuitry, like the electronic schematic diagrams from chapter 3. These circuits carry out the instructions of a computer program by performing the basic arithmetic, logical, control and input/output (I/O) operations specified by the instructions.
* A RISC processor over CISC processor.
  + “First, using the similar clock rates, RISC processors generally achieve 2 to 4 times the performance of CISC processors. In RISC processors, the simple instructions have a runtime of 1 clock cycle each; however, complex instructions in CISC architectures take longer to execute. Thus, the execution time must be the same on a sequential machine. However, RISC uses a pipelined implementation, which means instruction execution overlaps. Therefore, RISC generally has a faster execution time.
  + Second, because the instructions of a RISC processor are simpler in comparison to a CISC processor, they use up less space on the chip. This means functions like floating-point operations and memory management units can be placed on the same chip. With everything on the same chip, the hardware becomes much simpler. Thus, due to a simpler hardware, RISC processors are generally cheaper. On the other hand, CISC processors use complex instructions; these instructions take a lot more space on the chip. Therefore, the overall hardware tends to be more complex in order to accommodate features like floating-point operations and memory management units. As a result, CISC processors tend to be more expensive and more complex than RISC processors tend to be (CMSC411).”

Additional Website for material on RISC AND CISC Architectures: http://www.edgefxkits.com/blog/what-is-risc-and-cisc-architecture/

REFERENCES

CMSC411. (n.d.). Retrieved August 5, 2015, from http://cmsc411.com/why-choose-risc-over-cisc