Study Questions (Chapter 01 -- Part 2)

1. Can a clever system programmer differentiate between the encoded data object and encoded program instruction from their binary bit patterns?
   - No. Only 0 and 1.
2. Define and difrenciate between constants, variables, and pointers.
   - Constants don't change Variables change Pointers' value is address.
3. In *register transfer language (RTL)* notation, what does [X] ← [Y] + Z mean?
4. In *register transfer language (RTL)* notation, what does [X] ← Y + Z mean?

   initialization } The content of address x is the content of address y plus z.

   x is y plus z.
5. In *register transfer language (RTL)* notation, what does [X] = Y + Z mean?

   assignment.
6. Which is faster, cache memory or registers? ✓
7. Which is faster, cache memory or dynamic memory? ✓
8. Computer buses link together two or more functional parts of a computer and allow the exchange of data. How these computer parts can communicate to each other without having data collision?
9. Can a computer system have more than one bus?

   Yes.
10. Define bus width.

    The number of parallel data path.
11. Define bus bandwidth.

    A measure of the rate at which information can be transported across the bus.
12. Define bus latency.

    The waiting period between a data transfer request and the actual data transmission completed.