Study Questions (Chapter 01)

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

2. What is microarchitecture?

3. What does the term CPU stand for?
   Central processor units.

4. What does the term SRAM stand for?
   Static RAM

5. What does the term DRAM stand for?
   Dynamic RAM.

6. What is the primary difference between computer registers and main computer memory? *in CPU*

7. What is the width of a clock pulse if the clock frequency = 100KHz? *1/100k.*

8. What is the width of a clock pulse if the clock frequency = 5KHz? *1/5k.*

9. Can a clever system programmer differentiate between the encoded data object and encoded program instruction from their binary bit patterns? *X* *not change.*

10. Define and differentiate between constants, variables, and pointers. *change* *variable* *that its content is an address.*

11. In *register transfer language (RTL)* notation, what does [X] ← [Y] + Z mean?

12. In *register transfer language (RTL)* notation, what does [X] ← Y + Z mean?

13. In *register transfer language (RTL)* notation, what does [X] = Y + Z mean?

14. Which is faster, cache memory or registers?

15. Which is faster, cache memory or dynamic memory?

16. Can a computer system have more than one bus?

17. Define bus width.

18. Define bus bandwidth.

19. Define bus latency.