Study Questions (Chapter 01 – Part 1)

1. Define the Instruction Set Architecture term.
   - An abstract model of a computer.
2. Define the computer organization term.
   - The implement of ISA.
3. Does computer architecture consider the specific design or implementation of a computer?
   - No
4. Does computer organization consider the specific design or implementation of a computer?
   - Yes
5. What is the main difference between computer architecture and computer organization?
   - One focus on what a computer does while one on how it does.
6. What is microarchitecture?
   - Computer's organization.
7. What does the term CPU stand for?
   - Central Processing Unit.
8. What does the term SRAM stand for?
   - Static Random Access Memory
9. What does the term DRAM stand for?
   - Dynamic Random Access Memory.
10. Mention the two main characteristics that specify computer registers.
    - 32-bit and 64-bit.
11. What is the primary difference between computer registers and main computer memory?
    - Registers are located within CPU
12. What is the difference between a dedicated and general-purpose computer?
    - Dedicated computer can only handle one kind of task.
13. Is an aircraft's automatic pilot an example of a dedicated or a general-purpose computer?
    - Dedicated.
14. What is the width of a clock pulse if the clock frequency = 100KHz?
    1/100k
15. What is the width of a clock pulse if the clock frequency = 5KHz?
    1/5k.
16. What is the main difference between synchronous and asynchronous events?
    Synchronous events are activated by clock.