1. List down and briefly explain the 8 great ideas in Computer Architecture.
2. Briefly describe the 5 key components of a Computer System.
3. Define Addressing mode. Explain 5 Addressing modes with examples.
4. Suppose we have two implementations of the same instruction set architecture. Computer A has a clock cycle time of 250 ps and a CPI of 2.0 for some programs, and computer B has a clock cycle time of 500 ps and a CPI of 1.2 for the same program. Which computer is faster for this program and by how much?
5. Mention the addressing modes used for the branch and jump instructions.
6. Write the code sequence for B = A + C in stack and accumulator instruction set architecture.
7. Describe the code sequence of C=A+B in Single Accumulator organization and Stack organization of instruction set architecture.
8. Summarize different types of ISA architecture.
9. Differentiate between PROM and EPROM.
10. List cache related terminologies.
11. Define Temporal locality and Spatial locality.
12. Explain the various Cache Mapping Techniques.
13. Problem