Computer Architecture

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1. Remembering:
- Define the concepts of binary, octal, and hexadecimal number systems
- Identify the characteristics of one's and two's complements
- Recall the different character codes such as ASCII and EBCDIC

2. Understanding:
- Explain the structure of computers and the interactions between different components
- Describe the differences between multiprocessors and multicomputers
- Differentiate between combinational circuits and computer registers

3. Applying:
- Convert numbers between different number systems using base conversion
- Implement addressing modes in computer architecture
- Utilize register transfer language to describe the operation of a CPU

4. Analyzing:
- Evaluate the advantages and disadvantages of Complex Instruction Set Computer (CISC) architecture
- Analyze the design of a control unit in a computer system
- Examine the concept of instruction level parallelism in computer architecture

5. Evaluating:
- Critically analyze the role of RAM, ROM, and virtual memory in computer systems
- Assess the use of paging and secondary storage in improving system performance
- Evaluate the different levels of RAID configurations for data storage

6. Creating:
- Design a multi-threaded architecture for improved performance
- Develop a distributed memory MIMD architecture for parallel processing
- Create a comprehensive plan for designing and implementing micro-programmed control in a computer system