

All five questions count equally.

1. Name two principles of RISC computer design.
2. Using a figure, show the difference between a pipeline machine and a superscalar machine
3. Which of the following memory organizations is possible? Which is reasonable?

a. 10-bit address	1024 cells	8 bits/cell
b. 10-bit address	1024 cells	12 bits/cell
c. 9-bit address	1024 cells	10 bits/cell
d. 11-bit address	1024 cells	10 bits/cell
e. 10-bit address	10 cells	1024 bits/cell
4. Using AND, OR, and NOT gates, draw a 4-input multiplexer circuit.
5. Explain the difference between a synchronous bus and an asynchronous bus.